

An exploration of articulation from TVET Colleges to universities and the world of work

by

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This thesis presented in partial fulfilment of the requirements for the Degree of Doctor of Education in the Faculty of Education at the University of KwaZulu Natal.

May 2018

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Abstract

This thesis focuses on ways in which the Technical Vocational Education and Training (TVET) College sector articulates with universities and the world of work in South Africa, and draws on TVET research in Southern Africa as a comparative dimension. The definition of articulation used in South Africa's 2014 articulation policy is

Articulation refers to the mechanisms that enable student mobility within and among the institutions that comprise the tertiary system, for example, academic credit accumulation and transfer, recognition and equivalence of degrees, recognition of prior learning, and so forth (N'gethe et al. 2007, xvii).

There has been a strong education and training policy focus on articulation since the advent of democracy in South Africa, both as a form of redress and as a mechanism for ensuring that the labour force was transitioned into the opening global economy. My interest in producing this thesis was to ascertain how this policy commitment to articulation arose and how the implementation of articulation within South Africa's post-school education and training sector occurred in practice.

The thesis is presented in the form of an Introduction chapter, five journal articles, a co-authored book chapter, and a Research findings and Conclusion chapter. The Introduction chapter outlines the contextual background for this study, as well as commissioned research that led to the production of the academic articles included in this dissertation. The research findings and conclusion chapter groups these research findings into key thematic areas and reflects on the use of these theoretical frameworks for future articulation research.

This dissertation has drawn on a range of theoretical frameworks to analyse ways in which articulation of TVET Colleges with universities and the world of work has been framed and implemented. A central argument made within the thesis is that current policy definitions of articulation tend to focus on institutional mechanisms rather than theoretical and historical features that have shaped post-school articulation to further study and the world of work.

Declaration

By submitting this thesis electronically, I declare that the entirety of the work contained therein is my own original work, that I am the sole author thereof (save to the extent explicitly otherwise stated), that reproduction and publication thereof by the University of KwaZulu Natal will not infringe any third party rights and that I have not previously in its entirety or in part submitted it for obtaining any qualification.



Date: May 2019

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Ethical Clearance

This thesis is composed of journal articles that drew on commissioned research undertaken by the author under the auspices of the Further Education and Training Institute at the University of the Western Cape, which became a formal academic institute named the Institute for Post-School Studies in 2013. All ethical processes followed for this commissioned research are detailed in Chapter 1 and ethical clearance documentation has been attached as appendices to this thesis. The journal articles contained within Chapters 2-7 drew on these published commissioned research reports.

Acknowledgements

I would like to thank the Lord for granting me the opportunity to complete this dissertation.

To my supervisor, Professor Volker Wedekind, I thank you for your patience and assistance in guiding me through the PhD process, which is really appreciated.

To my boss, Professor Joy Papier, I thank you for your dedication and direct assistance that ensured I was able to complete this dissertation while working full-time. It would not have been possible otherwise.

To my wife Carol and daughter Portia, thank you for your support and patience, especially over many weekends. I am blessed to have such a wonderful family.

To Peter Hodson, your guidance and support provided me with the hope and motivation to complete this dissertation. I thank you.

To my colleagues, I thank you for taking up the work slack at all times while I completed the dissertation and for your support.

Dedications

I would like to dedicate this dissertation to my father and the memory of my late mother, both of whom have always championed education.

Abbreviations

ABET	Adult Basic Education and Training
ANC	African National Congress
ASGISA	Accelerated and Shared Growth Initiative
CAT	Credit Accumulation and Transfer
CBOs	Community-Based Organisations
CEO	Chief Executive Officer
CET	Community Education and Training
CHE	Council on Higher Education
COSATU	Congress of South African Trade Unions
CPD	Continuing Professional Development
DHET	Department of Higher Education and Training
DoE	Department of Education
DoL	Department of Labour
FET	Further Education and Training
GEAR	Growth, Employment and Redistribution
HRDC	Human Resource Development Council of South Africa
HSRC	Human Sciences Research Council
JIPSA	Joint Initiative for Priority Skills Acquisition
LMIP	Labour Market Intelligence Partnership
NAMB	National Artisan Moderation Board
NCV	National Curriculum Vocational
NDP	National Development Plan
NEET	Not in Employment, Education or Training
NGOs	Non-Governmental Organisations
NLRD	National Learner's Records Database
NQF	National Qualifications Framework
NSDS	National Skills Development Strategy
NSFAS	National Student Financial Aid Scheme
PFMA	Public Finance Management Act
PSET	Post-School Education and Training

QCTOs	Quality Council for Trades and Occupations
RDP	Reconstruction and Development Programme
RPL	Recognition of Prior Learning
SADC	Southern African Development Community
SAQA	South African Qualifications Authority
SETAs	Sector Education and Training Authorities
TVET	Technical and Vocational Education and Training
UNESCO	United Nations Educational, Scientific and Cultural Organization
WCED	Western Cape Education Department
WP-PSET	White Paper on Post-School Education and Training

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Journal of Vocational and Continuing Education and Training,
1(1) 1/11/2018 DOI: 10.14426/jovacet.v1i1.303, P 53-70.

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Chapter 1: Introduction

1.1 Introduction

This thesis is comprised of a series of journal articles and book chapters focused on the Technical, Vocational, Education and Training (TVET) sector in South Africa. The articles reflect commissioned research undertaken through my work at an academic research institute within the Education Faculty of the University of the Western Cape. A primary focus of my research over the past ten years has been to analyse articulation policies and initiatives between the TVET College sector with other post-school education and training sectors as well as with the world of work.

The definition of articulation used in the South African National Committee for Articulation Policy (2014) is taken from a World Bank study of higher education differentiation and articulation in 12 African countries in 2007:

Articulation refers to the mechanisms that enable student mobility within and among the institutions that comprise the tertiary system, for example, academic credit accumulation and transfer, recognition and equivalence of degrees, recognition of prior learning, and so forth (N’gethe et al. xvii).

The technical definition provided above focuses on the institutional processes to achieve articulation. The South African Qualifications Authority (SAQA) has also contributed to definitions of articulation through noting that articulation is both systemic and specific. Systemic articulation refers to national policies and legislation affecting student progression within South Africa’s post-school education and training system, whereas specific articulation refers to institutional mechanisms and agreements that allow for inter-institutional articulation. This thesis argues that definitions of articulation cannot be confined to systemic and institutional processes and needs to take account of historical and theoretical approaches that have affected articulation between the TVET sector, higher education and the world of work. Most of the research work undertaken for this thesis has focused on South Africa, although the author has drawn on African and international comparisons within this research.

This introduction provides a brief overview of education and training articulation policies in South Africa in order to provide a regulatory and conceptual framework within which the research for this dissertation has taken place. It then outlines some of the commissioned research that led to the development of the articles that make up Chapters Two to Seven of this thesis. The chapters are then summarised as well as the theoretical frameworks underpinning these articles.

1.2 Contextual policy background for articulation in South Africa

Articulation of qualifications in post-apartheid South Africa has received considerable policy attention. The South African Qualifications Authority Act (March 1995) was one of the first pieces of legislation introduced after South Africa achieved independence in 1994, which led to the introduction of an eight level National Qualifications Framework (NQF) that encompassed all qualifications in South Africa. Articulation was one of the key principles addressed within the NQF, namely to “facilitate access to, and mobility and progression within education, training and career paths” for all South Africans and to “accelerate the redress of past unfair discrimination in education, training and employment opportunities” (SAQA Act 57, March 1995).

South Africa’s national qualifications framework was extensively reviewed from 2002 to 2008 and while the principle of articulation has been retained, the structure of South Africa’s NQF has been changed considerably, which makes both systemic and specific articulation difficult. Initially SAQA undertook the development of new outcomes based qualifications through the establishment of Standards Generating Bodies and National Standards Bodies, which were led by educational and industry experts. These qualifications were to be achieved by any education and training provider through the development of curricula that led to the direct achievement of stated outcomes and associated assessment criteria. At the same time, existing formal educational qualifications developed for schools, TVET colleges and universities were also registered on the NQF as ‘legacy’ qualifications and it was envisaged that the legacy qualifications would be phased out and replaced by outcome based qualifications over time. This did not happen in practice (Allais 2010).

SAQA was initially governed by two separate government Ministries, the Department of Education and the Department of Labour. Both of these government departments developed successive legislation that fragmented the unified approach to qualifications developed by SAQA. The Department of Labour promulgated the Skill Development Act in 1998, which led to the creation of 23 Sectoral Education and Training Authorities (SETAs), all of whom accredited education and training providers to offer outcomes based qualifications based on unit standards that were developed through SAQA's standards generating processes. The Ministry of Education introduced legislation (NEPI Act 1996) that ensured that the Department of Education retained control of curriculum development for schools and Further Education and Training Colleges (now TVET Colleges), external to SAQA's qualification development processes. Universities largely excluded themselves from SAQA's qualification processes and continued to offer undergraduate and postgraduate qualifications accredited by the Department of Education that were not aligned to SAQA (Allais 2010).

Following the review of the NQF, the separate development of qualifications was formalised through the National Qualifications Framework Act in 2008, which reduced the ability of SAQA to coordinate and oversee qualifications development in South Africa. The academic levels of the NQF had been increased from 8 to 10 levels and three sub-qualification frameworks were promulgated namely: the General and Further Education and Training Sub-Qualification Framework for school and college based qualifications led by Umalusi; the Occupational Qualifications Sub-Framework, which incorporated all outcomes based SETA qualifications developed through SAQA processes, led by the Quality Council for Trades and Occupations (QCTO), and the Higher Education Sub-Qualifications Framework for university qualifications led by the Higher Education Quality Committee (HEQC). Institutional qualifications were quality assured by Umalusi at NQF Levels 1-4 and by the HEQC at NQF Levels 5-10. Outcomes based occupational programmes quality assured by the SETAs and QCTO spanned NQF Levels 1-8. Each of these sub-qualification frameworks had separate qualifications development and quality assurance processes.

TVET Colleges were situated at the nexus of these three sub-qualification frameworks as they offered theoretical vocational programmes quality assured by Umalusi, occupational programmes accredited by SETAs under QCTO, and higher education institutional qualifications that were allocated to the QCTO's quality assurance processes. This had

significant implications for TVET Colleges, as they were subjected to a range of competing quality assurance processes and these qualifications did not provide a systemic progression route to university qualifications.

More recent policy development on articulation has taken place namely, the Ministerial Committee on Articulation Policy Report (2013) and the National Qualifications Framework Act of 2008. The Ministerial Committee on Articulation Policy (2013), of which the author was a member, noted the weak status of articulation within South Africa's post-school education and training sector, despite the policy emphasis afforded to articulation:

The South African Post-School Education and Training (PSET) system is riddled with conceptual and systematic challenges and incongruities. Users of the PSET system experience a lack of coherence and articulation between and within the sub-frameworks that constitute the NQF. Moreover, the system is perceived to be incessantly producing and reproducing gender, class, racial and other inequalities in access to PSET opportunities and to success in PSET programmes (Gov. Gazette No 37775: 7).

The South African Qualifications Authority (SAQA) also made detailed policy submissions and these were included with the Ministerial Committee's report in South Africa's current articulation policy legislation (RSA 2019). The South African Qualifications Authority (SAQA) notes that articulation can be both 'systemic and specific' in that:

Systemic articulation is based on legislation, national policy and formal requirements within the education and training system. Specific articulation ...is based on formal and informal agreements within the educational and training system, mostly between two or more education and training sub-systems, between specific institutional types, and guided by guidelines, policies and accreditation principles. Specific articulation also refers to institutional accommodation of individual needs (Gov. Gazette No. 37775: 23).

SAQA developed a Credit and Accumulation Policy in 2014, which calls for the recognition of credits across learning institutions and to increase the portability of qualifications registered on the National Qualifications Framework. Despite the inclusion of articulation in formal

legislation for the post-school education and training sector, which accord with the overall definition of articulation provided above (N'gethe et al, 2007), effective articulation between South African post-school education and training institutions and qualifications remains an intractable systemic problem.

As an example, South Africa has three sub-qualifications frameworks whereby secondary school and TVET College provision to Grade 12 (NQF Level 4) are quality assured through Umalusi, occupational programmes and workplace based qualifications are quality assured through the Quality Council for Trades and Occupations, and higher education programmes are quality assured under the Council for Higher Education Quality Council. These sub-qualification frameworks have their own qualifications and quality assurance mechanisms that do not interface with each other and remain a systemic articulation issue. Specific articulation refers to arrangements between institutions for articulation and these have often relied on individual champions within institutions to forge articulation agreements between a TVET College and a University of Technology. These articulation arrangements are often ad hoc and are not necessarily formalised through Memoranda of Understanding. The next section focuses on institutional factors affecting TVET College articulation.

Institutional governance of TVET Colleges

Successive TVET policies from 1998 (White Paper 4, FET Act 2006, White Paper PSET 2013b) have emphasised the need for TVET institutions to address employment and self-employment for TVET graduates, while also providing articulation possibilities to further study. Although the key focus of these policies is to address employment of TVET College graduates in the formal sector, policies for the TVET sector have introduced continuous changes from 1998 to date and these are chronicled in the following chapters. Many of these changes have affected the governance and working conditions for TVET College staff. 128 Technical Colleges were classified as a provincial competence in 1998. Following the promulgation of White Paper 4 (1998), these technical colleges were merged into 50 public Further Education and Training Colleges, each of whom established college councils in the early 2000s (DoE 2006). This led to all FET College lecturers being employed by newly formed College Councils, with the exception of senior management who remained under provincial employment. In 2009, FET College lecturers were then re-employed by the newly formed Department of Higher

Education and Training (DHET), who renamed FET Colleges as Technical Vocational, Education and Training (TVET) Colleges and re-centralised the 50 Colleges under the national Department's post-school education and training sector (PSET). The changing institutional governance of TVET Colleges has not accorded TVET Colleges with the autonomy to negotiate specific articulation arrangements with universities or with industry and agreements that currently exist have been centrally steered by the DHET (Imbizo 2018).

Curriculum changes in TVET Colleges

National curricula for TVET Colleges has also undergone significant re-structuring. White Paper 4 (1998) drastically curtailed the academic level of programmes offered by Further Education Colleges (previously technical colleges and now renamed as TVET Colleges)¹, by legislating that the majority of TVET provision be offered at NQF Levels 2-4 (Grades 10-12), despite the fact many colleges had offered over 90 % of their qualifications at NQF Level 5 (1st year university level). The original National Certificate (NATED N1-N6) programmes used to train white artisans in the apartheid era (pre-1994) have been continuously revised and updated on an ad hoc basis as one mainstream form of TVET College provision. Attempts were made in the mid-2000s to replace the NATED Certificates with another new largely theoretical curriculum named the National Certificate Vocational (NCV) programmes. The rationale for introducing the NCV programmes was to align TVET qualifications with school based exit level National Senior Certificate qualifications and provide opportunities for TVET College graduates to enter higher education qualifications offered by universities (DoE 2006). Industry and business preferred to employ NATED graduates as even though the programmes were dated, there was widespread industry understanding of the NATED training that led to artisan trade tests. Both the NATED and NCV qualifications have been retained as mainstream state funded TVET College provision. Throughput rates for both of these qualification types have remained low (LMIP 2018: SSACI 2016) despite improving over time, but neither of these qualifications effectively articulate with universities, despite the policy intentions for the introduction of the NCV programmes (Needham 2018).

¹ In this thesis, the terms Technical Colleges, Further Education and Training (FET) Colleges, and Technical Vocational Education and Training (TVET) Colleges are used to identify particular time periods, whereas the term colleges is used to generically refer to all of these terms.

Funding of TVET College programmes

Initial policies set for FET Colleges (now TVET Colleges) envisaged that they would be centrally involved in workplace based qualifications known as learnerships and skills programmes. These were outcomes based programmes based on small unit standards generated by SAQA that typically involved 30% theoretical learning at colleges and 70% practical learning in the workplace, quality assured by SETAs. These workplace based qualifications were funded through a 1 % Skills Levy, payable by employers based on payroll. Public TVET Colleges were effectively excluded from offering these workplace qualifications from 1999 to 2009, as many SETAs argued that public TVET colleges were already funded by the Department of Education and that additional funding from the Department of Labour controlled National Skills Levy constituted a form of 'double dipping' or double funding (Green Paper PSET, 2013). This changed with the creation of the DHET, who assumed control of the SETAs and the National Skills Fund together with adult education centres, TVET Colleges and universities in 2009. Public TVET Colleges were subsequently announced as the preferred providers for workplace based training instead of private providers, who had previously been awarded over 90 % of all skills levy training funds in the previous decade, but were ill-equipped to offer this training (Green Paper PSET 2013). Needham & Papier (2018) note that existing labour legislation, namely South Africa's Labour Relations Act (Act No. 66 of 1995) and the Compensation for Occupational Injuries and Diseases Act (Act No. 130 of 1993) have specific provisions that prevent non-employees from working or training in the workplace, as non-employees are not covered by insurance should any accident occur within the workplace. This has meant that TVET colleges are still only able to provide the 30 % theoretical training component and business and industry use their own staff trainers to provide the 70 % workplace learning component. Learnerships and skills programmes continue to be regulated by SETAs together with the emerging Qualifications Council for Trades and Occupations (QCTO) and largely do not articulate with mainstream programmes offered by TVET Colleges or universities.

Having provided a brief overview of the regulatory systemic and institutional environment affecting articulation in South Africa, the following section briefly describes some of the empirical commissioned research on articulation in which the author participated, which formed the basis for the articles in the following chapters.

1.3 Commissioned research on articulation

International funding was obtained by the University of the Western Cape's Further Education and Training (FET) Institute in 2007 to research articulation. The FET Institute was a self-funded institute located within the Faculty of Education and became a part of a larger formal academic institute named the Institute for Post-School Studies (IPSS) in 2013. The study focused on systemic factors affecting articulation for the TVET sector and involved inter alia detailed interviews with members of the South African Qualifications Authority (SAQA). A member of SAQA then referred a query from a professional quality assurance body for the long term insurance industry, who was attempting to locate their private provision of an NQF Level 5 (1st year university level) qualification in financial planning within public TVET Colleges. SAQA's criteria for professional quality assurance bodies was they could not be an education and training provider and a quality assurance body simultaneously as this constituted a conflict of interest. The professional body therefore needed to shed its status as an accredited education and training provider with the Insurance Sectoral Educational and Training Authority (INSETA – one of 23 SETAs), as the professional body was in the process of becoming a legally recognised professional quality assurance body, registered by SAQA, for the insurance industry. The university institute entered into detailed discussions with the professional quality assurance body, five public TVET Colleges and the Insurance Sectoral Education and Training Authority (INSETA), responsible for the quality assurance of this NQF Level 5 qualification. The university institute also engaged in detailed discussions with the university's Economics and Management Faculty and brokered an in-principle agreement that would allow students who graduated from an NQF Level 5 qualification at public TVET Colleges to enter an Advanced Diploma and a subsequent Postgraduate Certificate in Financial Planning qualifications. On completion of the Postgraduate Certificate, graduates would be permitted to sit the professional quality assurance body's board exam, leading to the internationally recognised designation of a Certified Financial Planner.

This agreement was formalised in 2009 and 100 students employed in the insurance industry were funded by INSETA to enrol in five INSETA accredited public TVET Colleges for the NQF level 5 qualification. 77 students completed this qualification at public TVET Colleges and 23 graduates enrolled in an Advanced Diploma at the public research university. 12 students completed the Advanced Diploma and 7 students subsequently completed a postgraduate

Certificate. A further 100 students were subsequently enrolled in public TVET Colleges for this articulation route. Two research reports were submitted to the funder on this articulation project in 2012 and 2015 respectively.

Ethical research protocols were closely followed for these research reports. All graduates interviewed signed formal letters of consent, which provided a commitment that student names would be anonymised and that students' voluntary participation in interviews and focus groups could be terminated at any point. Similarly, interviews held with project stakeholders such as TVET College lecturers, INSETA and the University of the Western Cape Economic and Management Science's also gave formal permission for their voluntary participation in the articulation research report submitted to the funder, INSETA, which are attached as Appendix B to this thesis.

During this articulation project described above, the author and another senior researcher from the FET Institute were contracted by a European research agency to form part of a lead researcher team to assess the status of TVET in the Southern African Development Community (SADC region). This involved a study of 12 SADC countries, including South Africa. A national researcher was appointed for each of the 12 countries and the lead researchers contributed to the final research report submitted to SADC and UNESCO. Articulation between vocational colleges and universities and articulation to the world of work were included in this research. UNESCO subsequently published the key findings of this research (UNESCO 2013). The research undertaken primarily relied on secondary sources of information gathered by the national researchers, and interviews with policy makers and senior education and training management in each of the SADC countries.

In 2013 a provincial education department approached the Institute for Post-School Studies (previously the FET Institute) with a request to evaluate a large scale intervention they had conducted for young students who had repeatedly failed their academic school years in Grades 7, 8 and 9 (the first three years of secondary education in South Africa). Over 2 000 students had been recruited and placed into education and training programmes in public adult learning centres (now named as Community Education and Training Colleges) as well as public TVET Colleges. The university institute agreed to the formal evaluation and utilised international funding to conduct this research. Research on student progression with public

adult learning centres proved impossible as no accurate records were maintained documenting their progress. The university institute conducted research on over 1 000 students who entered entry level skills training (NQF Level 1 – Grade 9) in wholesale and retail, engineering and welding programmes conducted by five public TVET Colleges. Telephonic interviews and focus group discussions were held with over 300 learners on their transition from formal secondary schools to TVET Colleges, their experience of the TVET College skills programme and their career and learning destinations on graduating from the programme. All graduates were over 18 years old and they signed formal consent forms to be interviewed as well as focus group interviews. Copies of the assent and consent forms are attached as an Appendix to this thesis. The FET Institute also obtained formal ethical consent from each of the TVET Colleges to conduct research with staff involved in the Youth Focus interventions. A formal ethical clearance application was also made to the University of the Western Cape’s Humanities and Social Sciences Research Ethics Committee, and copies of these are attached as Appendix C to the thesis.

Key research findings were that over 70 % of all young students who enrolled in the skills programmes completed the programme, but only 27 % obtained employment. A substantial number of young students subsequently opted to further their studies within TVET Colleges.

A final commissioned research project which the author has been peripherally involved in is a three year project on articulation commissioned by SAQA and undertaken by a South African university of Technology. A SAQA symposium on Articulation (January 2019) reported on the articulation research undertaken, which clearly demonstrated that articulation between TVET Colleges and universities has not been mainstreamed. South Africa has three types of universities namely: Universities of Technology previously known as Technikons; comprehensive universities comprised of an amalgamation between a Technikon and a research university, and research universities focused on traditional academic disciplinary learning and research. The majority of articulation projects studied in this research focused on articulation between TVET Colleges and universities of technology. (SAQA 2017).

The commissioned research in which the author has participated demonstrates a range of articulation initiatives that include; entrance into the TVET College sector from formal schooling, the development of professional qualification articulation routes, destination

studies on TVET graduates progression to employment and a comparative study that included research on articulation within the SADC region. As evidenced, the majority of this research has been commissioned by national and international funding and constitutes a 'grey' literature (Wedekind 2010) as opposed to academic literature on articulation. The following section focuses on the author's academic journal articles that have largely been produced from these commissioned research projects.

1.4 Academic research on articulation

This section provides a description of each article that constitute the chapters of this dissertation and briefly outlines the content and theoretical approach adopted in each article. Each of these articles contains its own literature review and conceptual framework, as well as the key findings, conclusion and bibliography detailed in subsequent chapters.

The first journal article detailed in Chapter 2 is entitled 'Status of TVET in the Southern African Development Community: Colonialism revisited?' and has been submitted to the South African Review of Education (SARE). This article traces policies for TVET from colonial educational policy in Africa to the current period within the SADC region. The article draws on a policy transfer theoretical approach to demonstrate that current education and training policies for TVET within the SADC region still maintain elements of coercive and imposed policies for the TVET sector that have not changed significantly from the initial intention of colonial policies for vocational training. The article argues that vocational education and training has been perceived as inferior to university education since the colonial period subsequent policies for TVET have largely not enabled articulation to higher education.

The second journal article presented as Chapter 3, 'TVET Policy in South Africa: Caught between neoliberalism and centralisation?' has been submitted to the South African Journal of Education. The article asserts that the TVET sector has been subjected to contradictory privatisation approaches that have diminished the ability of the TVET sector to adequately respond to South Africa's education and training needs for economic growth. This argument draws on Ball and Youdell's (2007) definition of endogenous and exogenous privatisation to detail privatisation approaches within South Africa's public and private sectors. The article argues that countervailing approaches for public and private TVET sectors has not enabled these institutions to effectively articulate with the world of work.

The co-authored book chapter presented as Chapter 4 details a research project within a broader project on labour market intelligence. The role of the author's university institute was to conduct a large scale longitudinal survey on public TVET College NATED programme graduates' career and learning destinations. This research assessed student reasons for entering TVET Colleges, their academic progression within the colleges and their subsequent career and learning pathways. The research work has been published as an academic book chapter (HSRC: 2019)². The book chapter showed that just over half of TVET College graduates were able to articulate to the world of work. Ethical processes followed to obtain formal consent and assent from participating graduates are outlined in Appendix D to this thesis, as well the ethical clearance form submitted to the UWC Humanities and Social Sciences Research Ethics Committee.

A journal article entitled 'Exploring transitions from school to TVET Colleges by youth at risk: a case study of a South African education and training intervention' has been submitted to the Journal of Educational Studies and is presented as Chapter 5. This article uses a capabilities theoretical approach adapted from Sen (1990) to analyse a youth at risk intervention put in place by a provincial education department. A central argument made is that the placement of young people, who had repeatedly failed their first few years of secondary schooling, into TVET College skills programmes did not provide an adequate rate of return from this investment if viewed from a human capital theoretical approach. The use of a capability approach allowed the author to show that young people's transition from failure at school to success at TVET Colleges was an important developmental intervention in their early learning and career pathways.

Chapter 6 is a published journal article entitled 'Professional qualifications for the insurance industry: Dilemmas for articulation and progression' (Needham & Papier 2018) that draws on Bernstein's (1999) theorization of practical and disciplinary learning. The article analyses divergent pedagogical and curricula approaches to qualifications offered in an articulation route between TVET Colleges and an academic research university in an effort to explain why

² A letter from the lead author of this book chapter explaining the author's contribution to this book chapter has been included as an appendix.

students who were able to succeed in workplace based qualifications struggled with subsequent disciplinary qualifications.

A final published journal article entitled 'Student Support Structures for Transitioning from Vocational to University Education: A South African Case Study' (Needham 2018) utilises Tinto's (2005, 2010) work on student retention and associated critiques to analyse student support mechanisms and structures offered in an articulation route between TVET Colleges and an academic research university. This article is reproduced in Chapter 7. The article argues that competing approaches to student development offered by TVET Colleges and a university ultimately did not assist students in achieving a professional qualification.

The brief summary of the journal articles presented in this dissertation and associated theoretical approaches provides a guide to the following chapters of the dissertation. The ordering of these chapters has been chosen to reflect historical and systemic policy issues affecting articulation (Chapters 2 and 3), followed by large scale research on learners' destination pathways from TVET Colleges (Chapters 4 and 5), and ending with detailed analyses of a particular articulation project (Chapters 6 and 7). This is further elaborated on in Chapter 8, which discusses the implications of the research and theoretical findings in more depth.

1.5 Conclusion

This chapter has provided a contextual background of South African education and training policies affecting articulation of TVET College programmes and curricula with higher education and the world of work. It provided an overview of changing legislation for the TVET College sector since South Africa obtained independence to situate the context within which this study has taken place. A description of commissioned research that the author has been involved in has been provided as an additional background for the subsequent journal articles that form the basis of this dissertation. Theoretical approaches were detailed to support the author's central argument that understanding articulation from the TVET College sector to the world of work and universities requires a range of historical and theoretical approaches that go beyond institutional definitions of articulation.

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Chapter 2

Title: Status of TVET in the Southern African development community: Colonialism revisited?

Needham, S. 2018. Submitted to the Southern African Review of Education.

Abstract

Current public education and training policy in the Southern African Development Community (SADC) places a key priority on Technical Vocational Education and Training (TVET) to address unemployment, develop scarce skills and to create economic growth within and across member states. However the latest SADC UNESCO report on the Status of TVET in SADC (UNESCO 2013) and a range of earlier international research shows that these policy aims have largely not been achieved. In investigating reasons why there is such a dissonance between SADC TVET policy and implementation, one approach is to draw on the policy studies literature in order to ascertain whether policy processes have been coercive in nature. This article argues that the TVET sector in SADC has been subject to highly authoritarian forms of education and training since colonialism and that successive policy reforms have similarly resulted in the exclusion of TVET from mainstream education systems, particularly in Anglophone countries. This contributes to a deepened understanding on ways in which policy transfer affects education and training implementation in developing countries.

Key words: TVET: Colonialism: SADC: policy transfer

1. Introduction

TVET policies within the SADC region stress the critical importance of TVET to address human resource development priorities of economic growth, youth unemployment, poverty alleviation and social inclusion within overall human development strategies. Yet research on TVET systems within South Africa and other SADC member states points to a widespread perception that TVET is seen as a second choice option by TVET learners (Atchoarena 2001, Akoojee et al 2007, McGrath 2009). This article focuses on policies and implementation of TVET over time to analyse reasons why TVET policy aims have not been achieved and in so

doing argues that policies have not been able to overcome colonial legacies of TVET as a form of coercive control.

The article draws on research literature showing the position and status of TVET policies in Southern African Development Community (SADC) countries across three broad time periods. The first focuses on British colonial education policy in order to show how TVET was used as a key strategy to control and subjugate African workforces. The second time period traces TVET policies adopted since SADC member states obtained independence from the 1960s in order to reveal how member states largely adopted ex-colonial education and training systems that resulted in the marginalisation of the TVET sector within SADC country education and training systems. The third time period then identifies contemporary features of SADC TVET systems and argues that TVET has remained the weakest education and training sector within SADC members' educational systems. A central argument of the article is that SADC TVET systems in Anglophone countries have remained excluded from mainstream schooling and higher education resulting in weak and fragmented systems that are unable to achieve the policy aims of SADC member states. The article further asserts that the status of public TVET within SADC's Anglophone member states has not significantly changed since colonialism from a policy implementation perspective that subjugates learners to subordinate forms of education and training.

2. Theory and literature review

One of the most commonly accepted definitions of policy transfer and diffusion studies is provided by Dolowitz and Marsh (2000) who state "these studies are concerned with a similar process in which knowledge about policies, administrative arrangement, institutions and ideas in one political setting (past or present) is used in the development of policies, administrative arrangements, and ideas in another political setting" (p. 5). While the terms policy transfer and policy diffusion are often used interchangeably, they do reflect different emphases on ways in which policy movements are viewed. Stone (2012) notes that policy diffusion is often defined as policy change that:

occurs by osmosis; something that is contagious rather than chosen. It connotes spreading or dispersion of models or practices from a common source or point of origin. (p. 3)

In contrast, she argues that the term policy transfer studies “tend to prioritize proactive knowledge utilization or ‘lesson-drawing’ from policy developed elsewhere.” (p. 4).

Ball (2006) argues that educational policy studies are often ahistorical and quotes Grace (1995) who states ‘many contemporary problems or crises in education are, in themselves, the surface manifestations of deeper historical, structural and ideological contradictions in education policy’ (p. 3). Another area of contestation within policy transfer debates are causes underpinning policy failure and policy coercion. Stone (2012) notes that ‘poor, incomplete or partial transplantation [of policies – my insert] is not as well documented as the ‘success stories’ of transfer’ (p. 8). Bender et al (2014) from a policy diffusion perspective define coercion as the forceful adoption of policies by political units from other state and international actors and includes conditionality as a form of coercion. She notes however ‘there exists no consistent categorization of coercive and voluntary processes which consequently leads to rather intuitive classification of transfer processes by the various scholars’ (p. 14).

Schneider and Ingram (1990) argue that there are significant behaviourist assumptions underpinning policies and assert that most policy aims ‘to get people to do things they might not otherwise do; or it enables people to do things they might not have done otherwise’ (p. 513). They state that a range of policy tools are employed to enforce policy aims namely: ‘providing authority; incentives and capacity; by using symbolic or hortatory proclamations to influence perceptions or values; or by promoting learning to reduce uncertainty’ (p. 514). A central argument made is that the analysis of policy tools have the potential to reveal:

whether elites rely on tools such as negative labeling to inculcate in the have nots of society a sense of incapacity, lack of deservedness, and culpability for their own problems. Different assumptions may be revealed, so that the have nots are assumed to be less capable of learning or of responding positively to informational or educational programs, thereby necessitating the use of emotional appeals, sanctions, or force that reinforces the stigma and powerlessness of the groups. Even those policies that purport to help the less powerful may patronize or label individuals, leading to dependency, lack of self-esteem, and continued perceptions even by the victims of their overall unworthiness (p. 523).

Within the broad frame of comparative research, Robertson (2008) uses a critical political economy analysis to show the involvement of transnational agencies in policy formation in ways that undermine developing countries through their allocation of financial resources. Robertson critiques the involvement of the World Bank in higher education policy through the promotion of the 'knowledge economy'. She argues from a historical perspective that despite decades of under-funding higher education, the World Bank is now supportive of the development of higher education in developing countries in ways that privilege developed countries through privatisation and marketization of higher education. Dale (2001) uses a similar approach to outline the New Zealand model of outcome-based education and ways in which neoliberalism and new public management enabled New Zealand to export its outcomes based model globally.

One of the leading authors on coercive policy transfer is Steiner-Khamsi (2003). She notes the use of coercion through three areas of contemporary policy transfer studies, namely: a 'consensus model', whereby arguments are made that globalisation has caused similar education models to emerge in nation states; a 'conflict model' that also focuses on convergence but ascribes its cause to 'Westernisation' or cultural imperialism that aim to keep developing peripheral nation states dependent on policies developed by core industrialised nations, and a 'culturalist model' that acknowledges the cultural imperialism arguments of the conflict model but looks at ways in which local nations have resisted and contested policy imposition. She argues that studying 'local policy contexts against the backdrop of larger transnational or global developments should be considered a prominent feature of comparative education' (2012, p.4)

From an education and development theory perspective there have been numerous policy accounts, which include imposed policy transfer. Many of these accounts have focused on education policies in Africa (Atchoarena 2002; King and Martin 2000; King and Palmer 2007: 2010; Chisholm and Leyendecker 2008; Chisholm 2009; 2012; Chisholm and Chilisa 2012; McGrath and Akoojee 2009; McGrath 2010; 2012; Oketch 2007; 2014; Young and Gamble 2005). These accounts provide key policy insights into the changing nature of education and TVET in Sub-Saharan Africa over time and are drawn on by the author to map the evolution of TVET policies.

This brief discussion of policy studies above has shown that studies of policy transfer emphasise the need to take contextual and historical factors into account to explain policy change. In explaining coercive and imposed policy formation, a central point made is that policy formation is not necessarily neutral. The next sections of this article detail policy formation for TVET in SADC member states across three separate time periods, namely the colonial period, the post-independence period and the current contemporary period. Through this historical account, the article aims to identify coercive and imposed policy formulation that has had lasting effects on the current development of TVET systems in Southern Africa.

3. Historical approaches to TVET policy formation

USA Influences on colonial education policies

Steiner-Khamsi and Quist (2000) used the case of Achimoto College in Ghana to show the transfer of American racial policies as a key ideology to reinforce British colonial education. Achimoto College was one of the first British colonial education institutions to adopt the USA Hampton-Tuskegee model of industrial education for African-Americans. This was funded by the New York philanthropic Phelps-Stokes Fund and the British colonial administration to develop a key 'scientific model' for education of black Africans. The imposition of this policy served to reinforce racial segregation in British colonial Africa. The introduction of the USA industrial model was renamed and recontextualised as adapted education, which was then incorporated into British colonial education policy and imposed throughout the British Empire from 1925. The USA industrial education model and the resultant British colonial adapted education model stressed that 'blacks should be trained for a life of manual labor and should stay away from studies that were too "bookish" and academic' (p. 274). The introduction of adapted education within Achimoto College was strongly resisted within the Gold Coast (now Ghana) as previously established colonial higher education institutions in the Gold Coast were focused on academic studies that enabled graduates to progress to British universities such as Oxford. Caught between two strands of academic education and a stress on rural agricultural curricula, Achimoto College steadily lost ground to competing academic institutions. In the 1930s Achimoto College dropped adapted education and replaced this with

'cultural adaptation' which 'promoted the knowledge of African languages, history and the arts' (p. 282).

From a policy transfer perspective however, Steiner-Khamsi (2003) notes that this policy transfer had a profound impact on British colonial policy:

The concept of adapted education was first developed around 1890 as part of the Hampton-Tuskegee model for the education of African-Americans in the U.S. South, then transferred to the African continent in 1900, subsequently used in the nineteen thirties for the education of indigenous peoples of the Pacific, and in its final stages in the nineteen fifties diffused wherever the British colonial administration felt pressured to deal with the education of "backward" and "retarded" people...(p. 175).

Of key interest for this article is the description of what type of education adapted education advocated and was actively resisted. Steiner-Khamsi (2003) describes the USA approach of industrial education in the rural South as follows:

Adapted education, exemplified in the "activity curriculum" of the Hampton Institute and the Tuskegee Institute, aimed at ideals of Godliness, cleanliness, and industrial education. Among the activities taught at the two American institutes were blacksmithing, basketry, carriage trimming, and bricklaying, as well as homemaking arts for the girls (p. 176).

Adapted education particularly emphasised the value of manual labour and agriculture and Steiner-Khamsi quotes Raymond Buell's (1928) emphasis that 'the students [may] be given a special training, so that instead of flocking into the towns they may go back to their villages, as chiefs, teachers, housewives, farmers, medical assistants and artisans' (p. 280). Drawing on Foster's (1965) research Steiner-Khamsi notes that 'Adaptation seemed to lead to a type of education that was second-rate, rural, and non-academic, preventing students from further study and urban migration' (p. 179). Objectors to adapted education in Ghana comprised both traditional chiefs and western-educated Ghanaians who 'resented the limited opportunity that adapted education or "Africanization", had to offer in achieving political, social or economic parity with Europeans (ibid).

Noting Steiner-Khamsi and Quist's (2000) finding that the USA Hampton Tuskegee model of industrial education had a significant influence on the development of British colonial policy, which largely mirrored the USA policy, this article takes a closer look at the content of the colonial policy in relation to vocational training.

Colonial Education Policies

Vocational and technical training policy was defined in the 1925 Education Policy in British Tropical Africa (Ormsby-Gore 1925). Technical training emphasised industrial training 'especially mechanical training with power-driven machinery' (Ormsby-Gore 1925, p. 7) that should be provided through government or specialised workshops. For this form of technical training, the policy noted:

The skilled artisan must have a fair knowledge of English and Arithmetic before beginning his apprenticeship in order that he may benefit by instruction and be able to work to dimensional plans. Instruction in village crafts must be clearly differentiated from the training of the skilled mechanic (Ormsby Gore 1925, p. 7).

Technical training therefore focused on skilled industrial trades needed for British colonial production and was noted as a separate skill in relations to more generic vocational training defined below.

Vocational training was defined separately to technical training and the policy emphasised the need to overcome negative perceptions of manual labour:

Apprentices and "learners" in vocations other than industrial should be attached to every Government department e.g. Medical, Agricultural, Forestry, Veterinary, Survey, Post Office (telegraphy) etc., and should as a general rule, sign a bond to complete the prescribed course of instruction together, if so required, with a prescribed period of subsequent service. It should be the aim of the educational system to instil into pupils the view that vocational (especially the industrial and manual) careers are no less honourable than the clerical, and of Governments to make them at least as attractive – and thus to counteract the tendency to look down on manual labour (Ormsby Gore 1925, p. 7).

Vocational training was therefore not focused on industrial trades needed for production of British colonial industries but rather as semi-skilled labour for the British government colonial services.

Education for women was also addressed which showed clear gender separation within the policy as shown below:

The high rate of infant mortality in Africa, and the unhygienic conditions which are widely prevalent make instruction in hygiene and public health, in the care of the sick and the treatment of simple diseases, in child welfare and in domestic economy, and the care of the home, among the first essentials and these, wherever possible, should be taught by well qualified women teachers (Ormsby Gore 1925, p. 7).

In addition to racial segregation, British colonial educational policy clearly emphasised subjugated roles for women based on traditional roles of caring and domestic work.

The 1925 British Tropical Africa Policy was also very clear in its prioritisation of education for its own administrative capacity as shown below:

The first task of education is to raise the standard alike of character and efficiency of the bulk of the people, but provision must also be made for the training of those who are required to fill posts in the administrative and technical services, as well as of those who as chiefs will occupy positions of exceptional trust and responsibility. As resources permit, the door of advancement, through higher education, in Africa must be increasingly opened for those who by character, ability and temperament show themselves fitted to profit by such education (Ormsby Gore 1925, p. 4).

As can be seen from this policy account, vocational education was clearly separated from clerical administration and access to higher education and vocational education was used as a key policy tool to enforce the subjugation of Africans. Clerical and technical training were reserved for Africans with who had proved academic competence in English Mathematics, while vocational training used to relegate Africans into manual labour. Access to higher education was reserved for African chiefs and Africans who were compliant with British colonial policies.

The effects of colonialism in SADC member states were varied and this article draws on selected studies and policy accounts within some Anglophone SADC member states to demonstrate different ways in which British colonial education policy was enacted. In South Africa, Badroodien (2005) and Paterson's (2005) research on colonial education verify the implementation of the 1925 British Tropical Africa policy. As Badroodien notes however, vocational training in South Africa applied to non-whites only until 1910. Thereafter, the Union Government restricted vocational training to predominantly poor white recipients. Technical education was clearly separated from industrial/vocational education with the latter focused on social welfare concerns that were more concerned with issues of social control than training.

A policy review framework commissioned by UNESCO and the Zimbabwe Ministry of Higher and Tertiary Education (2005) notes that formal vocational education in Zimbabwe (then Southern Rhodesia) was introduced from South Africa in the 1920s. The Zimbabwe policy review states that colonial vocational education ignored traditional apprenticeship systems established from the time of the Rozvi and Munhumatapa Empires that produced 'forge work, iron mongering, sculpture, art and painting, basketry, pottery, architecture, weaving, among many' (p. 12). Similar to South African accounts, the policy review notes that vocational training under colonialism was segregated according to race with more prestigious vocational training reserved for white, Asian and coloured populations who were enrolled in British City and Guilds qualifications. Vocational training for Africans was perceived as a dead end and the report asserts that African vocational graduates 'were just meant to go back to the "reserves" and develop them using their acquired skills, an idea that was unpalatable at the time' (ibid).

Nherera (1994) further describes policy coercion strategies used for vocational colonial education in Zimbabwe:

Colonial administrators used two major strategies to restrict African education. First, they controlled the number and quality of educational facilities in order to ensure that very few Africans would get educated, and that their education would be inferior to that of Europeans. The second strategy was to emphasise basic industrial and craft subjects which did not lead to higher education or skilled employment.

McGrath (2005) notes that SADC countries shared this colonial legacy and states:

What all of them have in common is that they inherited colonial systems of VET. In most cases, the inheritance was of a British model, but, whatever the origins, each colonial system was shaped powerfully by racialized notions of ability and 'appropriate' employment, as well as a strong reliance on white, expatriate skills (p. 1).

In summary therefore, the key features of vocational education for SADC member states under British colonial rule are characterised by coercive policies that emphasised technical education to drive production within colonial industries and separate vocational/industrial education that stressed the importance of manual labour and agricultural education as a form of social control. Gender roles within vocational education were clearly demarcated with women focusing on hygiene, health and the home while men were inducted into trades. Vocational education was highly segregated according to race and Africans had very little access to skilled employment. Well established African traditional apprenticeships before colonialism were ignored and superseded by an emphasis on elementary 'native crafts' (Ormsby-Gore 1925). Vocational education within Anglophone colonies was primarily offered at primary and junior secondary school levels with minimal progression opportunities to further learning or skilled employment.

King and Palmer (2007) corroborate these features of colonial vocational education in asserting that TVET, industrial and agricultural education at a global level have been used to coercively subject people to a lower educational status:

At different historical periods, both in colonial regimes and in metropolitan countries, they have been thought to be particularly relevant to subject peoples and to lower classes respectively and to the less academic pupils in both contexts (King, 1971; 1991). In one sense, therefore, these subjects and courses were aimed at the poorer classes and colonised peoples, not so much to reduce their poverty but to secure for them a necessary but subordinate future in those particular societies (p. 3).

A seminal policy article on TVET by Foster (1965) entitled the 'The Vocational School Fallacy in Development Planning' had an international impact on postcolonial vocational policy and

the status of TVET within Africa. King and Martin (2000) show how Foster exploded the myth that secondary school students in Ghana voluntarily aspired to vocational education careers. Instead students chose academic qualifications in order to obtain clerical and commercial employment that paid much better remuneration than vocational trades and occupations. King and Martin quote Foster's assertion that schools are not able to change aspirations despite considerable efforts to re-orientate students to vocational education:

So long as parents and students perceive the function of education in this manner, agricultural education and vocational instruction in *the schools* is not likely to have a determinative influence on the occupational aspirations and destinations of students. Aspirations are determined largely by the individual's perception of opportunities within the exchange sector of the economy, destinations by the *actual* structure of opportunities in that sector (emphasis in the original 1965a, 151).

King and Martin (2000) note that Foster's work was all the more surprising as, at the time of writing, it challenged new emerging nationalism and optimistic policy visions of nation building, rural development and strong citizenship that could be achieved through education.

Having outlined distinctive features of vocational education policies and implementation under colonialism in Anglophone SADC countries, the article now focuses on TVET policies after independence in Anglophone SADC countries.

SADC TVET policies post-independence

Accounts of TVET after independence in SADC countries from the 1960s reveal very poor infrastructure, weak systems and low levels of African qualified staff (Akoojee et al 2005; Achola 1990; Atchoarena 2001; Dewah et al 2005, and Galabwa 1990). TVET remained a policy priority for SADC member states achieving independence but was largely overshadowed by the need to expand and improve education at all levels, particularly at formal schooling levels. Galabwa (1990) states that technical education policy in Tanzania as a part of expanded secondary education was only introduced in 1974, years after formal independence. Galabwa notes that despite these significant attempts to change attitudes to education and work, "teachers and parents still place a high prestige on pupils going to secondary education" (p. 18).

Similar resistance to TVET was recorded in other countries after independence. The Botswana College of Education was opened in 1970, the University of Botswana in 1982, and formal technical colleges were established from 1987 (Atchoarena 2001). Atchoarena notes:

A long-standing problem has been the poor status of TVET as compared to academic education. This is a real problem in Botswana and many people who took the vocational route found themselves in a cul-de-sac with regard to progression (p. 214).

This was despite the relative success of the Botswana Brigades in addressing skills for the informal economy.

Atchoarena (2001) notes that in most African countries that achieved independence in the 1960s, TVET was highly funded by multilateral and bilateral aid agencies, which saw this sector as crucial for the modernisation of African societies. During 1964 to 1969 secondary technical education was the second largest recipient of World Bank loans for education, which totalled nearly 20% of total World Bank loans (p.47). By the late 1970s however, the World Bank funds for technical education decreased to 10% and to 6% in the mid-1990s. Robertson (2009) notes the World Bank's decision to prioritise basic education from the 1970s and shows how quantitative rates of return analyses were used to justify the view that public investment in education should be reduced at higher education levels since individuals enjoyed greater 'private returns' from higher education than 'public returns'.

King and McGrath (2012) also note the introduction of 'structural adjustment' by the World Bank in 1981 through its report entitled 'Accelerated Development in Sub-Saharan Africa', which blamed 'bad governance and statism' for the lack of development in Africa (p. 6). Both the International Monetary Fund (IMF) and the World Bank imposed strict conditions for further lending to African countries. This had severe implications for funding of public education and is explored in the section below. This analysis of policy accounts of TVET under colonialism and following the independence of SADC states in the 1960s show the neglect of formal public TVET provision and significant internal resistance by students and parents to TVET. The article now turns to the most recent consolidated analysis of TVET within SADC member states.

Contemporary SADC TVET Policies

The 2013 UNESCO-SADC Report on the Status of TVET in the SADC Region collated information from 13³ SADC countries. The report concludes however that although evidence exists of strategies to overcome policy incoherence, there is no data to show that these strategies have made an impact nor can they demonstrate policy lessons for other countries.

The UNESCO-SADC Report notes that TVET provision in SADC countries forms a small minority of education provision within these countries. From a systemic perspective the 2013 UNESCO Report notes that governance of TVET is often spilt across a range of government ministries that inhibit articulation.

TVET seems to occupy an uncomfortable space between academic schooling and occupational training, responsibilities for which are located in different government ministries and departments (departments of education or departments of labour/skills development) (p. 38)

The report covers the size and shape of TVET provision within 13 SADC member states. Lesotho, Malawi, Namibia, Seychelles, South Africa, Swaziland and Zanzibar all record public TVET enrolments of less than 5 % enrolment of young people aged between 15 to 24 years old in their respective countries. Botswana and Mauritius were exceptions in this regard with 30 % and 22% enrolment of young adults respectively. In all of these countries, men outnumber women in enrolments although gender breakdown data was not available from Botswana. As can be seen, enrolments in public TVET are low.

Funding of TVET systems shows that the TVET sector is considerably underfunded in comparison to schooling and university education. Government funding for public TVET ranges from 0.6 % to 13.6 % of the total education budgets.

While the stated policy aims for SADC countries include economic development and a competitive workforce, including an emphasis on 'accelerated technological development' and improvements in employment and/or employability' (p. 36), there is minimal evidence to show that these policies are being implemented. The UNESCO-SADC report (2013) further notes that most national policies do not emphasise development of the informal economy

³ The countries included Botswana, Democratic Republic of Congo, Lesotho, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland (now eSwatini), Tanzania and Zanzibar, Zambia and Zimbabwe.

and the policy focus remains on TVET for participation in the formal economy despite strong evidence that the informal economy accounts for significant employment in the SADC region (Macamo 1999). Many SADC TVET policies prioritise social development issues such as poverty alleviation, equity issues and HIV/AIDS, and while some are linked to implementation strategies the report notes that in others these policies 'appear to be merely well-intentioned ideas or statements' (p.89)

The UNESCO –SADC Report concludes that:

Whilst there is considerable rhetoric about TVET's developmental role, statements about it rarely go beyond the rhetoric. There is almost no sense that there are national or regional theories of how TVET plays a developmental role. Instead, there is a tendency to present formulae that TVET improves competitiveness and insertion into the global knowledge economy, which tell nothing about what these concepts mean in national contexts or how national TVET systems go about supporting these larger policy objectives. It is not surprising, therefore, that several countries still have little to say about the developmental potential and impact of TVET in their overall national development strategies. (p. 12)

In summary, the above UNESCO-SADC 2013 Report presents a considerable divergence between SADC TVET policy aims and the actual status of public TVET systems within SADC. While there have been significant efforts to address policy cohesion through the establishment of dedicated ministries and/or over-arching governance structures, TVET policy remains largely rhetorical in relation to economic growth and sustainable development.

The final section of this article draws on the policy findings across colonial, post-1960s independence and contemporary periods to ascertain possible reasons as to why SADC TVET systems remain weak and fragmented.

4. Findings and Discussion

The 1925 colonial vocational education policy in British Tropical Africa was an external policy imposed on colonial subjects to generate technical skills for the British colonial administration and to use vocational education as a form of social control to reinforce the subordinate status of Africans. Industrial and technical education was decentralised across a range of colonial

ministries and clearly segregated according to race and gender. Traditional apprenticeships in existence before colonialism were ignored and superseded by an emphasis on 'native crafts'. Vocational education did not lead to clerical and administrative employment within the British colonial systems. As Steiner-Khamsi (2003) noted, resistance occurs to the imposition of external policies and this is evident in the Anglophone accounts of colonialism, demonstrated through negative perceptions and poor participation in TVET.

Schneider and Ingram (1990) point to the behaviouralist assumptions underpinning policies. This is clearly evident in the British colonial educational policies. Policy implementation accounts (Atchoarena 2001; King and Palmer 2007, McGrath 2012) show further resistance to coercive vocational policies that aimed to keep Africans in rural agricultural work and industrial vocational education that were inferior to vocational training offered to white, coloured and Asian students. Vocational education also did not lead to prestigious access to British universities that were reserved for very few elites.

Policy accounts of Anglophone SADC countries after achieving independence in the 1960s show that schools and universities were the immediate priority for development of educational sectors, followed by vocational institutions up to twenty years after independence. All SADC countries relied on donor funds from the World Bank and bi-lateral aid agencies in order to develop education and training systems post-independence. This meant however that donor agendas were conflated with state manpower planning strategies and the vocational sector remained weak and fragmented. Passive resistance by learners to vocational training was pronounced as vocational occupations were less remunerated than academic schooling routes to administrative and clerical positions within newly established post-independence administrations. The findings of Foster's (1965) 'Vocational Fallacy' paper proved to be true across SADC Anglophone countries.

The UNESCO SADC (2013) Report shows the low number of learners entering into vocational education and training. These policy accounts show the broadening of the TVET sector policy scope to address social inclusion and poverty alleviation issues but human capital policy approaches that sought to utilise TVET for economic growth and development remain dominant. Anglophone SADC countries continued to follow British approaches to TVET despite significant funding and investment by countries with fundamentally different

approaches to TVET such as Germany, Denmark and Switzerland. Resistance to TVET is clearly documented as shown in the case of Botswana, where internal stakeholders noted that TVET was a 'dumping ground for failures' (Akoojee et al 2005, p. 21).

TVET has been seen as an inferior form of education that provides access to low paying jobs in comparison to academic schooling and largely does not provide any opportunities to further learning at higher education level and this perception is evident today. As a result, TVET is widely perceived as a second-choice option by learners and parents in comparison to university education. TVET policies in SADC Anglophone countries place a significant priority on the importance of TVET to achieve economic growth and development, but these policies are largely rhetorical. The status of public TVET within these countries is a fragmented and weak sector that is poorly connected to coordinated government efforts to alleviate poverty and achieve economic growth, despite some countries including TVET under Human Resource Development inter-ministerial committees. The range and scope of public TVET provision remains narrow and there is little evidence of TVET being acknowledged as an academic field of study in comparison to schooling and higher education. Whereas most SADC countries have very high rates of informal employment, public TVET systems have largely focused on skills for the formal economy and have largely disregarded informal skills training. This account of TVET as a second choice option accords with a broader literature (Bosch and Charest, 2008; Iannelli and Raffe, 2007) who argue that vocational education is generally stigmatised and signals low ability and motivation.

While voluntary policy transfer is acknowledged in later periods, I argue that these policies were drawn on from ex-colonial powers and imposed in ways that were detrimental to the development of TVET systems within SADC countries. Policy accounts during colonialism are described to show the coercive nature of vocational policy as a means of social and political control. Post-colonial policy accounts were then analysed to examine the extent to which independent countries in SADC continued to adopt previous colonising countries' education and training systems. A central argument made in this account is that vocational training policy in SADC has been coercive in nature, which has resulted in the isolation of TVET institutions and their accompanying knowledge base from mainstream education, as well as a fragmented approach that is unable to realise progressive policy aims for this sector.

This analysis of policy over time has shown that the introduction of coercive policies for vocational training through the Education Policy for British Tropical Africa in 1925 has had a lasting effect that has not improved with successive imposed policy transfers from post-colonialism to contemporary times. The policy account presented in this article represents a largely South account of the effects of British colonial policy within one geographic region in order to show how successive policies have reinforced the establishment of vocational training in SADC Anglophone countries that has resulted in TVET being perceived as a second class education and training option reserved for weaker students. Of some concern is that the current focus of TVET systems in SADC is to attract students who are unable to academically progress to university and TVET institutions are more of a holding space or second rate opportunity for young people than offering sustainable employment or employability options. As such, SADC TVET systems show governments positioning TVET policy as a key sector for economic and social development yet these sectors are poorly resourced and unable to achieve these policy objectives. The account also corroborates Schneider and Ingram's (1990) assertion that policy formation contains behaviourist assumptions that can result in 'policies that purport to help the less powerful may patronize or label individuals, leading to dependency, lack of self-esteem, and continued perceptions even by the victims of their overall unworthiness' (p. 523). While this has been a largely negative account of the effects of policy imposition, it does emphasise the importance of acknowledging the extent of current resistance towards TVET in SADC Anglophone countries from colonial times to the present and the effects of external imposition of TVET policies, which could inform future policy directions.

Conclusion

This article has shown the lasting effects of policies on SADC TVET systems from colonial times to the present. This corroborates the findings of scholars such as McGrath (2012) that current TVET approaches are often located in an outmoded model of development. Recent international policy developments such as the UNESCO Third International Congress on TVET (2012) and subsequent UNESCO Conference reports (2017) have stressed the adoption of equity and transformative analytic lenses for TVET in addition to the dominant focus on economic development. These policy directions stress an inclusive partnership approach to TVET that includes the informal economy as well as private and non-profit sectors to provide

sustainable development solutions for young people that go beyond rates of economic return. Sub-Saharan Africa has the highest out of school rates for young people (UNESCO 2018) and one of the lowest enrolment rates in TVET. Theoretical approaches that focus on integrated human development (McGrath 2012) and human capabilities (Sen 2009) have challenged these human capital approaches to TVET. This article suggests that despite a rhetorical policy commitment to broader developmental issues such as equity, access and broader social issues, current TVET policies have resulted in young people being subordinated to limited participation in the economy and limited ability to determine their own career and learning pathways. Future policy development for the TVET sector needs to take account of new policy directions and theoretical approaches in order to reverse a legacy of imposed and coercive policies from colonial times.

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Chapter 3

TVET policy in South Africa:

Caught between neo-liberalism and privatisation?

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**Journal of Vocational, Adult and Continuing Education and Training 2(2) 1/11/2019 DOI:
10.14426/jovacet.v2i2.73**

ABSTRACT

Technical and vocational education and training (TVET) policy in South Africa since 1994 has stressed the vital importance of this sector in contributing to economic growth and alleviating socio-economic inequities. Twenty years after these policies were first set down and replicated in subsequent legislation, South Africa's TVET sector has not been able to contribute to the key policy priority of reducing unemployment. Moreover, the sector has had a limited impact on achieving the nation's economic goals. From the perspective of developing human capital, significant state investment in this sector has realised very low economic returns. There is extensive literature on the privatisation of education and the effects this has had on education and training policies and systems. This article draws on theoretical approaches that analyse the internal and external changes to public education and training systems as a result of privatisation. Furthermore, the article argues that both public and private TVET providers have been subjected to differing endogenous and exogenous privatisation approaches as defined by Ball and Youdell (2007). These dual approaches have affected the ability of the TVET college sector to respond effectively to South Africa's education and training needs for economic growth, despite the prioritisation of this sector in government policy.

KEYWORDS

TVET; TVET colleges; privatisation; education and training

TVET policy in South Africa: Caught between neo-liberalism and privatisation? – S Needham

Introduction

The privatisation of education is a global phenomenon that is taking place across both developed and developing nations. Verger, Fontdevila and Zancajo (2016:7) define the privatisation of education as

a process through which private organisations and individuals participate increasingly and actively in a range of education activities and responsibilities that traditionally have been the remit of the state.

Ball and Youdell (2007) note that vocational education and training (VET) is the most privatised sector in education globally. Technical and occupational training in South Africa has been heavily influenced by its colonial and apartheid past, which has left lasting legacies (Badroodien, 2004; Kraak, 2004). Since the dawn of democracy in 1994, policies for the South African TVET sector have adopted a range of reforms that have sought to transform and modernise the sector in order to adapt it to developmental priorities of the democratic state. These transformative policies have included both endogenous and exogenous privatisation approaches. This article argues that South Africa's adoption of economic neoliberal reforms has led to a range of privatisation approaches in public education and training systems that affect TVET provision.

In attempting to analyse the extent to which privatisation policies have affected the ability of the TVET sector to respond to South Africa's development priorities, the article outlines the literature on privatisation, with a specific emphasis on privatisation approaches in South Africa's education and training sectors. The article then critiques South Africa's education and training policies for the TVET sector from 1994 to the present. In adopting a political-economy approach, this article uses privatisation as a lens through which to illuminate the contradictory and countervailing policies for the TVET sector. In the critique of privatisation

policies for the South African TVET sector, the article seeks to explain how, 20 years after the first policies were legislated for this sector, the TVET college sector has been subjected to differing stances affecting privatisation that do not enable this sector to align effectively with the economy or provide a platform for promoting the aims of the government's socio-economic policy.

Review of the literature on privatisation of public education and training

Ball and Youdell (2007) point to the emergence of privatisation in state education systems from the late 1980s and the early 1990s. They note that privatisation interventions were focused on the introduction of 'small state-free market' approaches to public services championed by political figures such as Ronald Reagan in the United States and Margaret Thatcher in the United Kingdom (Ball & Youdell, 2007:14). However, countries such as New Zealand and Chile also drew on free-market approaches developed by economists from the Chicago school of free-market economics. The introduction of privatisation principles and approaches to state public systems is often commonly referred to as 'neo-liberalism'. The concept of public services being viewed as a small state alongside a free-market economy is now a dominant approach to public education globally, regardless of whether political or economic concerns have prompted these changes (Verger et al., 2016).

Privatisation policies have generated significant academic debates. Critiques of human capital theory approaches and neo-liberalism are well known in South Africa and internationally (Valley & Motala, 2016; Verger et al., 2016). Ball and Youdell's (2007) definition of endogenous and exogenous privatisation in education is acknowledged in the academic literature on privatisation (Verger et al., 2016). Ball and Youdell (2007:16) note:

Privatisation tendencies are at the centre of the shift from education being seen as a public good that serves the whole community, to education being seen as a private good that serves the interest of the educated individual, the employer and the economy.

Key characteristics of endogenous privatisation include the introduction of new public management approaches from the 1970s that focus on performance management, accountability and performance-related pay and place pressure on public education systems

to adopt business reforms in order to be more efficient and productive. Verger et al. (2016) note two established theories of education policy change – namely the Globally Structured Education Agenda (GSEA) and World Culture Theory – that focus on the external influences affecting changes in education policy. The former sees the global capitalist economy as a key driver of change. This drive is led by institutions such as the World Bank, the International Monetary Fund (IMF) and the Organisation for Economic Co-operation and Development (OECD), which set targets and standards for education (Dale & Jesson, 1993; Robertson, 2005). Advocates of the World Culture Theory argue that similar education policy approaches are adopted globally on the basis of a common vision of a Westernised modern nation state that exerts pressure on countries, especially developing countries, to show that they are constructing similar modern states. Verger et al. (2016) also note that private providers are increasingly focusing on new education markets funded by public resources.

Streeck (2011) has noted the effects of capitalism on the public sector through underfunding and privatisation. He argues that global shifts of capital markets to tax havens, lower tax regimes and nation states which, from the 1980s, offered tax cuts, have left countries with high public deficits. This has resulted in reduced government expenditure on social security, as well as on investment in physical infrastructure and human capital. He states that privatisation was

a key part of this process, which was carried out regardless of the contribution public investment in productivity and social cohesion might have made to economic growth and social equity (Streeck, 2011:60).

Brown, Lauder and Ashton (2008) have written extensively on the capitalist market-led approach to education and training in the United Kingdom. The approach has been to massify education that is aimed at the production of high-level skills which attract high wages. In following this approach, learners invest in their own education in order to improve their chances of high-level incomes. By focusing on high-level skills, so the approach has held, expertise would be retained in the United Kingdom and lower-level skills development would be left to developing countries.

Brown et al. (2008) note, however, that, with globalisation, knowledge production has shifted away from developed economies such as the United Kingdom, as multinational companies

are increasingly focusing on developing their own human capital in developing countries where labour costs are much cheaper. They argue that the market-led focus of education will not result in high-level skills being retained in the United Kingdom, because British graduates will increasingly have to sell their skills globally.

From a southern African perspective, McGrath and Lugg (2012) drew on a case study of the status of TVET in the Southern African Development Community (SADC) in order to critique the notion of an international VET policy toolkit. They argued that national contexts are more important than 'generalisable laws of TVET reform'. Key features of the international VET toolkit included statistical evidence to inform evidence-based policy decisions and the use of policy to drive educational change in a context of governance steering reforms within a neo-liberal framework. They noted further that new public-management policy approaches underpinned the VET policy toolkit, including issues of performativity, decentralisation and marketisation. They asserted that some of these neo-liberal policy reforms were contested, citing as an example South Africa where

a national belief in the need for the state itself to be performative and developmental led to a strong view that decentralisation led to poor policy implementation and, therefore, undermined achievement of developmental goals (McGrath & Lugg, 2012:700).

Following the establishment of national qualification frameworks in Australia, England, Scotland and South Africa, these frameworks are currently being developed in more than 100 countries. Allais (2012:635) argues that 'the "market of qualifications" approach is associated with qualifications reform and qualification frameworks'. She states, further, that outcomes based qualification frameworks are 'a quintessential neo-liberal type of reform because they are focused on state regulation of service delivery, instead of the state providing public goods' (Allais, 2012:637). Allais notes that liberal market economies have weak vocational training systems and lower levels of entry-level skills training compared with coordinated market economies such as those of Germany and Scandinavia.

In a South African context, Allais (2012) regards South Africa's National Qualifications Framework (NQF) as an example of a market-led intervention that is not responsive to the

needs of the economy or society. In noting that a regulatory state is not a small state, she argues that the South African qualifications framework shows how

a policy which[,] on the one hand[,] is strongly centralizing – in terms of control and accountability mechanisms, and standards specification – but[,] on the other, strongly decentralizing – in terms of the management and delivery of education and the development of curriculum – has been very damaging to a sector which is extremely diverse and mainly institutionally weak (Allais, 2012:637).

This is corroborated by Marais (2011:339), who asserts:

Constant and considerable state intervention in the economy (and society broadly) is a hallmark of neoliberalism, including in the early wave of pioneering neoliberal states. In fact, what most distinguished them from their predecessors was their aggressive deployment of the state's powers and resources to advance the interests of conglomerate corporations, attack popular social formations and police society.

Kraak (2013) corroborates Allais's (2012) criticism that South Africa is an example of a market-led model of skills development similar to that of the United Kingdom. He asserts that both countries focus excessively on supply-side interventions, where, despite the fact that numbers of students are acquiring vocational qualifications every year, the anticipated increase in skilled personnel who could contribute to increased national productivity has not occurred. Kraak (2013) advocates an employer-led demand intervention for skills through sectoral skills councils as a 'radical departure from the centralised and statist approaches of the UK and South Africa'. This intervention should promote localised entities with a remit to influence firms' 'competitive strategies' directly (Kraak, 2013:5). He notes the lack of employer support for vocational training and the low levels of employment of graduates with vocational qualifications in the United Kingdom and South Africa. He also points to the need for additional policy reforms in the labour market and employment, including industrial and innovation policies.

This brief overview has outlined the significance of privatisation in neo-liberal or market-led education and training systems in South Africa. The following sections set out the conceptual

framework and methodology used for this article in order to analyse the impact of privatisation policies on South Africa's TVET sector.

Conceptual framework

The conceptual framework for this article draws extensively on Ball and Youdell's (2007) definitions of privatisation with a view to examining the ways in which privatisation approaches have had an impact on South Africa's TVET sector. Ball and Youdell (2007) use the terms 'endogenous privatisation' to describe the application of business principles in public institutions and 'exogenous privatisation' to refer to the outsourcing of public education to private providers. They note that the privatisation of education through the use of consultancies and agencies is becoming increasingly common. Ball and Youdell's (2007) definitions of privatisation have enabled the present author to show conflicting and countervailing approaches to privatisation adopted by departments responsible for education and training through frequent policy shifts in the TVET sector in South Africa. As opposed to arguing that privatisation approaches in TVET blindly follow the neoliberal economic stance adopted by democratic South Africa since 1994, this article asserts that endogenous privatisation interventions in the TVET public sector reflect contested policy imperatives in the TVET sector and the state departments responsible for education and training. These contested imperatives lead to the reversal of many of these interventions. The use of exogenous privatisation enables this article to focus on those facets of publicly funded TVET provision that have been externally outsourced to private for-profit providers. It also favours a focus on the way in which the private TVET sector (including the non-profit and for-profit sectors) have been affected by the policy decisions that have been taken.

Methodology

The methodological approach used for this article entails a detailed analysis of South African education and training policy reforms from the late apartheid years and of subsequent reforms undertaken after the inception of democracy. Both the national and the international literature on privatisation is used to analyse a range of education and training policies aimed

at South Africa's public and private TVET sectors with a view to identifying the ways in which Ball and Youdell's (2007) definitions of privatisation have been applied.

The specific policies drawn on for this analysis start with the Reconstruction and Development Policy (RSA, 1994) to show the initial policy vision for South Africa's education and training sector after democratic government had been attained. The White Paper on Education and Training (RSA, 1995b) is discussed because this policy formally separated educational institutions from workplace training. South Africa introduced a national qualifications framework (RSA, 1995a), which established the qualification levels for vocational education and training and qualifications for workplace training. Policies affecting the TVET sector included:

- The White Paper 4 (RSA, 1998a) that defined private and public further education and training (FET) colleges (now TVET colleges);
- the FET Colleges Act of 2006 (RSA, 2006a), which established public FET colleges as juristic bodies; and
- The White Paper for Post-School Education and Training (DHET, 2013) that led to TVET colleges being centralised under the national Department of Higher Education and Training (DHET).

Parallel education and training policies that affected privatisation interventions in the TVET provision include the Skills Development Act of 1998 (RSA, 1998b), National Skills Development Strategies (DoL, 2005), and the White Paper for Post-School Education and Training (DHET, 2013) that reoriented skills development training to public TVET colleges.

The suite of predominantly education and training policies is a key focus of this article because these policies effectively illustrate the ways in which endogenous and exogenous privatisation have affected the ability of the TVET sector to contribute to employment and economic development. The following section details South Africa's initial education and training policies in order to illustrate the transition from apartheid education to post-democracy policies. Endogenous privatisation policy approaches were outlined for South Africa's public TVET sector from 1994 to 2009; these were followed by exogenous privatisation policy approaches during a discussion of skills development legislation led by the Department of

Labour (DoL) in the same time period. In 2009, there was a fundamental reordering of education and training in South Africa and both the resultant policies and the effects this had on public and private education and training sectors are discussed here.

South Africa's initial education and training policies

In South Africa, the privatisation of education and training was noted as early as the 1980s when, in an attempt to prolong policies instituted under the apartheid government before 1994, the National Party introduced neo-liberal reforms to education and training. At that time, Kallaway stated:

In the era of 'reform' during the eighties the state has itself bought into the rhetoric of equality in educational provision (even if it is still separate but equal), but what has been of the utmost significance for the actual shape of policy and practice has been the desire to link the planning of education more directly to the needs of production and to allow a great deal more scope for the private sector in the field of education and planning (Kallaway, 1989:254).

Kallaway (1989) also showed how the apartheid government sold off key parastatals and privatised key state functions such as housing and health in the late 1980s. Kraak (2004) observes that technical colleges were deracialised only after the collapse of artisan training in South Africa in the 1980s following the global oil crisis and recession experienced from the late 1970s. Black Africans therefore entered into artisan training without the support of parastatals to provide the workplace training necessary to achieve artisan trade-test certification.

The introduction of South Africa's first democratic government in 1994 ushered in a range of new policies aimed at overcoming the legacies of apartheid. Many of these policies were informed by broad-based, anti-apartheid civil-society movements, including the ANC Policy Framework for Education and Training in January 1994 (CEPD, 1994). From a policy perspective, there was strong support for the introduction of American community college models led by non-profit organisations such as the National Institute for Community Education (NICE) and the Community College Association of South Africa as a way of reforming South Africa's education and training system (Raby & Tarrow, 1996). Both of these

initiatives envisaged strong civil-society partnerships with the state, which was supported by one of the first post-1994 policies, the RDP (Reconstruction and Development Programme), in 1995.

A key economic dispensation adopted by the new democratic South African government, the RDP aimed to provide essential infrastructure that would eradicate the socio-economic inequities caused by apartheid. This document noted the severe economic crisis inherited from apartheid and, similarly to Kallaway's argument, it made an important point about the privatisation of the parastatals:

But in recent years, under the cloak of secrecy, the apartheid state privatised or commercialised many agencies in the public sector (such as Transnet, Eskom, Telkom, Iscor, Foskor, SAA, the Post Office, Forestry and others). Often this policy, unilaterally imposed for ideological reasons, harmed basic services to the poor or reduced the ability of the state to mobilise resources for development (Kallaway, 1989:256).

Together with the technical colleges (now TVET colleges), and prior to their privatisation, these parastatals had previously provided the bulk of artisan training during the apartheid years. Lundall (1997) noted the dominance of parastatals such as Iscor in training artisans for the metal and engineering industry. Once privatised, these parastatals ceased training artisans, as training was not a business priority. A Presidency Report noted:

[T]he commercialisation of state-owned enterprises with a greater focus on profit-making in effect compromised training, with many of the training centres being run down (RSA, 2014:11).

The RDP strategy supported the introduction of a qualifications framework together with outcomes- and competency-based education that would cater for all South Africans, an arrangement previously called for by the Congress of South African Trade Unions (COSATU) as a means of overcoming previous discriminatory education legacies. Adult education, special-needs education and early childhood education were identified as key priorities. However, the RDP was phased out in 1996 after it was realised that the programme did not successfully promote sufficient economic growth; in its stead, the neo-liberal Growth,

Employment and Redistribution (GEAR) macroeconomic strategy was introduced in 1996 to attract investment in South Africa (Le Roux, 1997).

The White Paper on Education and Training (RSA, 1995b) was one of the first policies to be introduced following South Africa's democratic dispensation in 1994. This policy clearly separated education from training: the Ministry of Education was made responsible for schools, colleges and universities and the Ministry of Labour was responsible for skills development in the workplace. The 1995 White Paper noted the need to work closely with the Ministry of Labour, stating:

The Ministry of Education recognises the Ministry of Labour's essential interest in its active labour market policy, of which the promotion of skills development outside the formal provisioning system for education and training is an integral part (RSA, 1995b:10).

McGrath, Badroodien, Kraak and Unwin (2004) commented on the formation of a National Training Strategy Initiative (1994) led by trade unionists and employers that ultimately culminated in the establishment of South Africa's NQF. This policy process largely excluded education providers, focused as it was primarily on education and training for workers in formal workplaces.

During this reconstruction period, the South African Qualifications Authority (SAQA) Act (RSA, 1995a) led to the implementation of an eight-level NQF that encompassed all education and training in South Africa. Key objectives underpinning the NQF were to redress previous educational inequities and to articulate qualifications across all the education and training bands. South Africa drew heavily on the experiences of New Zealand, Scotland and Australia to develop an NQF for South Africa (Allais, 2012). Ball and Youdell (2007) note that, in New Zealand, the privatisation of education policy was centrally steered by agencies such as the New Zealand Qualifications Authority.

The next section focuses on policy approaches in South Africa's public FET colleges (now TVET colleges), with the emphasis on endogenous privatisation approaches.

Policies for public further education and training (FET) colleges, 1998–2009

With a change in economic focus from the RDP to GEAR, education and training policies were set to regulate South Africa's public vocational education and training system. McGrath (2010) notes that the initial policy process undertaken through the National Commission for Further Education (NCFE) advocated a community-college model based on trade union and civil-society visions of a new education and training dispensation. However, at the time of the development of the Green Paper for Further Education and Training (DoE, 1998), policy advisors were drawn from the National Business Initiative (NBI), a corporate business fund. The Green Paper for FET differed significantly from proposals set out by the NCFE and a more narrow focus was adopted that largely ignored the non-profit sector and civil society in favour of reforming South Africa's state-funded technical colleges. The Green Paper for FET (DoE, 1998) also demonstrated the state's intention to oversee and steer vocational education and training.

This heightened demand for flexibility and responsiveness carries the following implications for FET:

- A shift from rigid bureaucratic planning and management to an approach which more effectively balances efficient state coordination with market responsiveness; and
- State steering, rather than state control, which encourages and rewards innovation and quality (DoE, 1998: unpaginated).

One outcome of this policy change was that the public technical colleges were renamed FET colleges and the scope of their offering was reduced to NQF Levels 2 to 4 (Grades 10 to 12), which were equivalent to the final three years of formal secondary schooling. Prior to this, many technical colleges had offered more than 90% of their curricula at NQF Level 5 (the first year of higher education). Furthermore, FET colleges were not granted autonomy to develop their own programmes; on the contrary, the provincial education departments were registered as the accreditation authorities, while the FET colleges were designated as local sites of delivery for the provision of FET (RSA, 1998a). White Paper 4 also introduced mandatory college councils for FET colleges; this was an expression of the Department of Education's (DoE) first policy intention to reform public FET colleges as endogenously privatised colleges according to business principles. An example of this was the renaming of college principals as chief executive officers (CEOs) and their deputies as deputy CEOs for

academic, administrative and innovation leadership positions. The department's objective through these changes was thus to reflect the state's intention to align the colleges more closely with business principles.

White Paper 4 (RSA, 1998a) clearly demarcated separate education and training responsibilities and assigned them to different government departments:

In the market for education and skills, the Ministry of Labour operates mainly on the demand side, while the Ministry of Education operates mainly on the supply side. The Skills Development Strategy of the Ministry of Labour provides a framework for determining the training needs in the labour market and the funding mechanisms for training. The FET policy framework provides, in the main, a strategy for suppliers of education and training to respond to the labour market needs as identified by private and public employers (RSA, 1998a:16).

In 2006, the Further Education and Training Colleges Act was passed. This Act formalised the merger of 128 technical colleges into 50 new public FET colleges through the New Institutional Landscape Policy implemented by the Department of Education (DoE) in 2001. Together with the merger process, the Act also made the 50 FET colleges juristic bodies with governing councils, which signalled a significant privatisation intervention. Also, as part of the merger process, all FET college staff were transferred from the employ of their provincial education department to become FET College Council employees. An exception to this was senior management: the CEO and deputy CEOs of each college remained in the employ of the state (RSA, 2006b).

Many older college staff had serious reservations about changing their conditions of employment, as they feared losing government pensions and so they resisted entering into employment contracts that provided only for provident funds as opposed to guaranteed pensions. As a result, some staff opted to remain in the employ of their provincial education department rather than transferring to an FET college. Akoojee (2008) shows that the number of FET college lecturers in 2003 had decreased by 10% in 2005, when the merger process was nearing completion. He raised a further concern about the varying levels of expertise on college councils that had the potential to reinforce existing inequities between historically privileged colleges, on the one hand, and under-resourced colleges, on the other.

The state introduced a further economic reform – the Accelerated and Shared Growth Initiative for South Africa (ASGISA) – in 2006. This initiative replaced the previous GEAR policy. A key emphasis of ASGISA was its focus on increasing skills, which included a strategy to upgrade the FET colleges (RSA, 2006a). Such economic policy was coupled with the Joint Initiative for Priority Skills Acquisition (JIPSA), which similarly stressed the need to upgrade the FET colleges in order to develop skills in both the formal and the informal economy. With workplace training being located under the DoL’s learnership system, the public FET colleges increasingly focused on initial vocational training for pre-employed learners. The DoE, for its part, provided infrastructural funding for the FET colleges in preparation for the introduction of a new school-aligned curriculum. This meant that these colleges were increasingly focusing on theoretical inputs and less on artisanship and skills training for the workplace.

In 2007, the DoE introduced new programmes to the public FET colleges: the National Certificate Vocational (NC(V)) programmes. These were designed to replace the outdated NATED (National Accredited Technical Education Diploma) programmes that had been offered by public colleges before the introduction of learnerships. Wedekind (2014) notes the ambiguity in policy direction for the public FET colleges at this time. From 2004, the FET colleges were recapitalised in preparation for the incoming NC(V) programmes. The NC(V) programmes were designed to replace the 151 obsolete NATED artisan programmes that had been offered by public colleges since pre-apartheid times. The new NC(V) programmes were ostensibly planned in collaboration with industry, but this was a highly centralised process that entailed minimum consultation in some economic areas. The NC(V) programmes were primarily theoretical and required candidates to pass seven subjects per year over three years if they were to complete the qualification at NQF Levels 2 to 4. The DoE’s rationale for introducing the NC(V) curriculum was an attempt to align the NC(V) qualifications with the formal National Senior Certificate (NSC) at the end of senior school, which would then give graduates access to higher education qualifications and employment (DoE, 2006b). However, the public FET colleges were ill-equipped and ill-prepared for the introduction of the NC(V) programmes, and this resulted in a throughput rate of just over 5% in 2009 for the first cohort of NC(V) learners.

The universities have been slow to recognise the NC(V) as an alternative qualification to the NSC offered by schools; therefore, the uptake of NC(V) graduates in the universities has, to

date, been minimal. Meanwhile, the FET colleges were permitted to continue offering NATED programmes leading to artisan qualifications, but at reduced levels, and this led to a significant reduction in the capacity of public FET colleges to offer artisan qualifications leading to trade qualifications.

Importantly, students had to pay fees in order to attend public FET colleges, amounting to a minimum of 20% of the total costs of TVET programmes. Mainstream funding for the provision of TVET, constituting 80% of the total cost, was allocated by the central government to the provinces from 1994 to 2010, but each province had considerable latitude to decide on the actual percentage allocated to TVET colleges (Sheppard, 2017). TVET colleges in provinces such as the Free State, KwaZulu-Natal, Limpopo and North West were seriously underfunded. This was exemplified in the case of Limpopo province, where these colleges received only 65% of the 80% conditional grant allocated to the province (Sheppard, 2017).

Enrolment in the public FET colleges during the policy period under review has remained low in comparison with that in public schools and universities. In 1995, approximately 150 000 students were enrolled, which increased to just over 300 000 in 2007 and to 400 000 in 2011. A key reason for the increase in the latter years was the introduction of public bursaries for college students, which increased from R100 million in 2007 to R1.7 billion in 2012. These bursaries benefitted some 237 908 students between 2009 and 2011 (RSA, 2014).

The policy reforms undertaken in respect of South Africa's FET college sector from 1998 to 2009 have firmly located the public vocational sector as providers of initial education and training, situated within a narrow band of education and training that equates to the final three years of secondary schooling. As part of this restructuring, apprenticeship and artisan training was effectively removed from the public college sector and key linkages with industry were significantly weakened, an outcome that is detailed in the following section. Endogenous privatisation approaches exercised through public FET college policies included the use of the state to steer policy reform and the introduction of new public-management approaches that affected staff conditions of service and attempted to reshape the management of public colleges according to business principles. The funding of public TVET as a common good was not realised, and, instead, state funding of the provision of TVET was influenced by the decentralised decisions of provincial education departments as to how TVET

college funding was to be allocated. In addition, students attending public colleges had to pay fees on a 'user-pays' basis, even following the introduction of state bursaries from 2007.

The next section details a parallel policy process for continuing vocational education and training policies, one that marks a decisive intervention in the realm of exogenous privatisation.

Skills development policies from 1998 to 2009

A parallel policy on skills training was led by the DoL: it focused primarily on demand-led skills training in the workplace. Skills development legislation for occupational programmes was gazetted in 1998 shortly after the White Paper on FET (RSA, 1998a) was published. The Skills Development Act (RSA, 1998b) introduced unitised qualifications called 'learnerships' and skills programmes that combined theory and practical training in the workplace, funded through a national skills levy amounting to 1% of an employer's payroll. All learnerships and skills programmes were based on qualifications registered with the NQF. Allais (2012) notes that the South African NQF drew directly on the British National Vocational Qualifications model, which 'generally follows the model of getting stakeholders, particularly representatives of employers, to develop qualifications, which individuals can then select, to enhance their "employability"' (Allais, 2012:636). In addition, private providers could apply to the newly established sector education and training authorities (SETAs) for the accreditation of part-qualifications (skills programmes) and qualifications (learnerships) of their choice. Significantly, this skills development legislation also announced the phasing out of the time-based apprenticeships offered by public TVET colleges, in which apprenticeships were to be replaced by learnerships.

Despite the DoE's assertion that the FET colleges would continue to offer learnerships (RSA, 1998a), public FET colleges were effectively no longer permitted to offer these occupational programmes. The provision of TVET resorted under the provincial departments of education, which were required to obtain accreditation from SETAs established by the DoL, which was a slow and uneven process. In addition, many SETAs established under the skills development legislation believed that, as the public FET colleges were already funded by the DoE to offer vocational programmes, the SETAs' engagement in providing learnerships or skills programmes constituted 'double-dipping' or double funding by both the DoE and the DoL.

This was noted in the Green Paper on Post-School Education and Training (RSA, 2012), where concerns were raised about the lack of long-term partnerships between employers and public institutions as a result of the exclusion of public providers from SETA-funded training (DHET, 2011:65). Instead, learnerships and skills programmes were offered by a plethora of newly created private providers accredited by the SETAs to access these state-funded training opportunities.

The Skills Development Act (RSA, 1998b) firmly located all workplace training under the DoL. This training included apprenticeship and artisan training delivered through the learnership system. Prior to this Act, all apprenticeships had been delivered by FET colleges in trimester and semester programmes that were coupled with work experience before apprentices wrote trade tests to become qualified artisans. The Skills Development Act (RSA, 1998b) effectively removed apprenticeship and artisan training from the public FET colleges. Instead, private providers offered outcomes-based theoretical and practical work-based programmes, accredited by the SETAs against specific levels of South Africa's NQF. Importantly, the Skills Development Act also located all continuing vocational education TVET policy in South Africa and training for employees under the learnership system, leaving public FET colleges with the responsibility for initial vocational education and training.

A five-year National Skills Development Strategy (NSDS I) was introduced in 2001; it prioritised private providers offering learnerships and skills programmes. These skills development strategies were framed by indicators to monitor and record progress against key objectives. A key emphasis of NSDS 1 was to increase productivity. Kraak (2004) notes, however, that this led to the introduction of a massive bureaucracy responsible for the implementation of the NQF, and, specifically, for the delivery of skills development targets. This bureaucracy included 12 national standards bodies and over a hundred standards generating bodies located under the SAQA. A Presidency Report (RSA, 2014) noted that the provision of training by not-for-profit and community-based providers, and youth development organisations, decreased during this period; it attributed this decline to the formalisation of training in line with the NQF that

added onerous conditions (such as the legal requirement to be accredited and adherence to the quality assurance system) to what might otherwise have been a non-formal training environment (RSA, 2014:19).

Kraak (2008) notes that a total of 134 223 learners were registered for learnership programmes from April 2001 to March 2005. Of these learners, only 45 813 were employees in the workplace and 88 410 were unemployed. Kraak (2008) asserts that the emphasis on training unemployed learners arose from a Growth and Development Summit in 2003 that emphasised the need for training for unemployed youth. The FET colleges (now TVET colleges) were marginalised from the provision of learnerships in NSDS 1, and, owing to capacity constraints, the small number of learnerships allocated to public FET colleges were outsourced at the expense of building the in-house capacity of public colleges. Kraak (2008) notes, further, that the expansion of learnerships to unemployed learners was driven by a rapid rise in private providers who were offering supply-side qualifications in response to a new market for education and training rather than responding to employers' training needs. Most of the learnerships undertaken in terms of NSDS 1 were provided at very low education and training levels. NSDS II was introduced in 2005 and similarly stressed training in the workplace by private providers. A total of 74 244 learners were enrolled in learnerships from 2005 to 2009.

This analysis of skills development policies in South Africa reveals a significant exogenous privatisation policy intervention led by the DoL. Through the location of all continuing vocational education and training, including apprenticeship and artisan training, with private providers, public FET colleges were effectively removed from workplace-based education and training. The introduction of skills development policies involved the establishment of a massive bureaucracy for the registration and accreditation of private providers, at the expense of non-profit community-based providers. The skills development policies were also supply-led, leading to a massive increase in training by providers as a result of a new market for education and training stimulated by public resources obtained through a skills levy tax.

The following section details the reversal of this exogenous privatisation policy intervention through the consolidation and recentralisation of education and training under the newly created DHET in 2009.

South African education and training policies from 2009 to 2015

In 2009, a new policy process resulted in the creation of two education ministries, the DHET and the Department of Basic Education (DBE). All adult education, TVET (formerly FET) colleges and universities fell under the DHET, but an important shift was that the SETAs and the National Skills Fund were also located under the DHET. Occupational training was no longer a responsibility of the DoL and accredited providers; instead, skills levy funds from the 1% training tax based on employer payrolls were redirected towards public TVET colleges as opposed to private providers. As a result of this significant policy shift, the conditions of employment for public TVET college staff were changed yet again and the state became the employer of all staff. These changes signalled a significant negation of the previous endogenous privatisation approaches. They also resulted in the recentralisation of colleges under a national DHET as a national competence rather than a provincial competence; in addition, the recentralisation brought about a reversal of the exogenous privatisation approaches led by the DoL.

At the same time, it was announced that the public TVET colleges would become the preferred providers of all occupational programmes by providing learnerships and skills programmes funded by the SETAs. By 2009, public state-funded providers had previously been allocated less than 10% of all funds generated through the 1% skills levy (PMR, 2013), the vast majority of funds having been allocated to private providers.

However, the TVET colleges were poorly equipped to take advantage of their preferred provider status. A critical problem they faced in undertaking learnerships was that trainers with industry expertise were externally hired on a contractual basis for the duration of the training, because the state provided permanent employment only for educators offering NCV and NATED programmes (Needham & Papier, 2018). This meant that the TVET colleges could not retain the expertise of the industry trainers that had been used for learnerships, nor could they build internal capacity. Meanwhile, enrolment rates at the TVET colleges grew significantly with the introduction of the state-funded bursaries, and throughput rates of the mainstream NC(V) and NATED programmes have steadily increased since 2009, albeit from a very low base. Key to this trend was student access to the National Student Financial Aid Scheme (NSFAS) bursaries, which were extended to TVET colleges for the first time in 2013.

The most recent policy process has been the development of the National Development Plan (NDP) and the White Paper on Post-School Education and Training (DHET, 2013). This marked a further centralisation policy process that built on the coordinated efforts by the Human Resource Development Council (HRDC) of South Africa to work across multiple ministries. The NDP was launched in 2013; it stressed the primacy of higher education in developing innovation and knowledge. Targets were also developed for the TVET sector, namely to produce 10 000 artisans per year initially and 30 000 annually by 2030. These targets also included the expansion of the TVET colleges to enable them to train 1.25 million learners by 2030 from a base of just over 600 000 learners in 2013. The 2013 White Paper placed strong emphasis on private-industry involvement in the public TVET colleges, as stated below:

Employers should also be in a position to advise the college system and individual colleges around issues of curriculum, and experts from industry could teach at colleges on a part-time or occasional basis. SETAs have an important role to play in promoting and facilitating links between colleges and employers. A curriculum that responds to local labour market needs or that responds to particular requests from SETAs, employers or government to meet specific development goals will result in a differentiated college system with various niche areas of specialisation (DHET, 2013:xii).

However, private providers were not supported in the 2013 White Paper, which focused entirely on public TVET provision, and the policy clearly indicated a reduced role for private provision:

While recognising and appreciating the role of private institutions, the Department believes that the public sector is the core of the education and training system. The government's main thrust, therefore, should be to direct public resources primarily to meeting national priorities and to provide for the masses of young people and adult learners through public institutions (DHET, 2013:xv).

During this period, economic growth slowed in South Africa. Between 1994 and 2012, the average economic growth rate achieved was 3.2% (Bhorat, Cassim & Tseng, 2016). Since 2012, the annual growth rate fell from 2.2% to 1.3% in 2015. Sheppard (2017) noted that this

level of economic growth is far short of the estimates of the *National Development Plan* of more than 5% per annum to 2030 (National Planning Commission, 2011), and far below the 8 to 10% per annum needed for a period of two decades to address the 'triple challenge' of unemployment, inequality and poverty in South Africa (Sheppard, 2017:27) (emphasis in original).

Bhorat et al. (2016) concluded that TVET college graduates were only as likely as secondary school leavers to gain employment. These authors further asserted that the high unemployment rates in South Africa can be attributed, first, to an oversupplied labour market with low education and training skills levels in an economy that seeks skilled occupations, and, secondly, to the poor quality of schooling and education and training.

This section on contemporary education and training policies in South Africa has shown the significant reversal of the endogenous and exogenous privatisation policy approaches that the departments of education and the DoL, respectively, enacted in previous education and training policies. In asserting the role of the developmental state, the government, through the creation of the DHET in 2009, amalgamated the education and training functions of both departments, and this led to the recentralisation of the public TVET colleges as a national competence. The market for continuing education and training in the workplace that had been dominated by private providers was now redirected to the public TVET colleges, which were poorly equipped to realise these opportunities as a result of having previously been marginalised from workplace education and training. The conclusion below reflects on Ball and Youdell's (2007) definitions of privatisation to illustrate ways in which countervailing approaches to privatisation have not helped public and private education and training institutions to contribute to economic growth in South Africa.

Conclusion

Ball and Youdell's (2007) definitions of endogenous and exogenous privatisation are useful in noting the extent to which privatisation affects both the public and the private provision of education and training as a market opportunity. South Africa's initial White Paper on Education and Training (RSA, 1995b) clearly separated the supply of initial vocation and training allocated to the public vocational education and training system and a 'demand-led'

continuing education and training system in the workplace that was dominated by private providers.

This article has traced the development of parallel education and training policies by two separate government departments, the DoE and the DoL. On the one hand, these policies relegated the public TVET colleges to providing initial education and training at secondary school levels; on the other, they opened up workplace education and training to a private provider market. Allais (2012) and Kraak (2013) have clearly shown that both of these education and training systems have been supply-led and characterised by increased enrolment rather than performing their intended function, namely addressing the education and training needs of employers.

Ball and Youdell (2007) have argued that privatisation tendencies are at the centre of the shift from education

being seen as a public good that serves the whole community, to education being seen as a private good that serves the interest of the educated individual, the employer and the economy (Ball & Youdell, 2007:16).

The policies developed by the DoE (RSA, 1998a; RSA, 2006b) endorsed endogenous privatisation approaches through regulating public education and training, including the derogation of public state-funded staff to private college council employment, the decentralisation of public funds to provinces which were differentially allocated to public TVET colleges, and the imposition of private fees on TVET college students. These endogenous privatisation approaches were then subsequently reversed in 2009 with the recentralisation of the public TVET colleges as a national competence and the introduction of state funding for students.

The DoL skills development legislation explicitly made provision for a market for private providers of continuing education and training at the expense of public providers; in so doing, it introduced the possibility of significant exogenous private intervention in the provision of TVET. Kraak (2013) has shown that this resulted in the supply-led provision of workplace training, as private providers capitalised on market opportunities, rather than a focus on

demand-driven education and training for economic growth. This exogenous intervention has also been reversed following the creation of the DHET in 2009.

South Africa's neo-liberal economic approach has enabled neither of these education and training systems to effectively produce TVET graduates who help to overcome the critical skills shortages and contribute to national economic growth. These parallel policies have instead resulted in a separation of provision for initial and continuing vocational education and training, and have led to only minimal synergies between public and private providers that could otherwise be used to strengthen the country's education and training policies. Recent policy developments (DHET, 2013) have further limited the possibilities for public and private providers to collaborate and share expertise in what should be a coordinated TVET education and training intervention.

By using privatisation as a lens through which to view education and training policies that affect the provision of TVET, this article has demonstrated that the implementation of endogenous and exogenous privatisation policy approaches has not facilitated the building of a coherent public and private TVET sector that is capable of contributing the critical skills required to stimulate economic growth.

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Chapter 4

Title: Tracing the pathways of NATED programme graduates through TVET Colleges and beyond

Papier, J., Powell, L., McBride, T & Needham, S. Submitted to L Rogan, M (Ed). 2018. *Post-school education and the labour market in South Africa*. Cape Town: HSRC Press.

Introduction

Technical Vocational Education and Training (TVET) systems within Sub-Saharan Africa have, for much of the past century, been critiqued for their inability to demonstrate that investment in TVET leads to productive employment (e.g. Foster 1965; Psacharopoulos & Bank 1994; Middleton et al. 1993). The latest consolidated UNESCO-SADC report (UNESCO 2013) on the status of TVET within the Southern African Development Community (SADC) region notes a lack of empirical data that makes it impossible to evaluate the efficacy and efficiency of TVET provision or its contribution to employment. The research presented in this chapter therefore makes a decisive contribution as it provides key insights into the learning and career pathways of public TVET College graduates in South Africa as part of the larger Labour Market Intelligence Partnership project.

This chapter presents the results of a 2016 survey of 4,050 TVET college graduates enrolled in NATED Report 191, N3 and N6 Business and Engineering programmes across the 50 public TVET colleges nationally. The NATED programmes have historically been offered in South African public Technical/Further Education and Training Colleges (renamed TVET colleges in 2014) and were developed to provide theoretical training for learners already in employment, and to support the training of artisans. The N3 in Engineering represents an exit level for college learners roughly at the level of Grade 12 schooling, while N6 would be the end-point for both Engineering and Business studies programmes, at a post-Grade 12 level/NQF Level 5. These NATED programmes, explained more fully in the sections below, are in need of upgrading and modernisation since, in most instances, technology has advanced rapidly, for instance the advances in computerised diagnostic systems in the automotive industry, whilst college curricula have remained stagnant.

The research presented in this chapter intended to answer the following questions:

1. Who participated in the NATED qualification route in 2013?
2. What have been the destinations of NATED graduates at key exit points since 2013?
3. What has been the take-up of NATED college graduates within the labour market since completion of their studies in 2013?

Equally important are the methodological lessons that were learned during the course of this research: the research project represents an important first step in developing a national system for tracking college graduates into the workplace and resulted in the construction of a dataset of NATED graduates which can be used as the basis for a systematic TVET research and monitoring framework. The key focus of this chapter, however, is the analysis of the survey data with a focus on the state of graduate employment for N3 and N6 Business and Engineering programmes.

In order to provide some context, the chapter begins with a review of the literature on public TVET college provision, its policy environment, and some comparative literature on TVET graduate destinations. The detail of the research methodology, which has itself yielded critical findings, is contained in Appendix A hereto. Therefore what follows from the TVET context section is a presentation of the key research findings on: student pathways into public TVET Colleges, their learning trajectories within the college, and their destinations on exiting the college. We conclude with a discussion and some reflections on both the findings and the methodology that might inform future research in the TVET sector.

The TVET College Context in SA

The National Accredited Technical Education Diploma (NATED or Report 191) Programmes (also known as N-programmes) were traditionally linked to apprenticeships through the Manpower Training Act of 1981. These programmes were offered as pre-matric (N1-N3) and post matric (N4-N6) programmes. They provided predominantly theoretical components of the apprenticeships, of which Engineering programmes were offered on a trimester basis and Business programmes were offered on a semester basis.

During the 1980s and early 1990s, these programmes were typically offered on a 'block release' basis using a 'sandwich model'. Alternating between college and work, students

completed a level per trimester, worked in industry for a similar period of time and then returned for the next level. Towards the end of Apartheid, however, the apprenticeship system fell into decline. Increased numbers of Black African students enrolling in the college system coincided with the delinking of the college system from this direct relationship with companies. Trimester or semester theory courses were then offered to pre-employed students instead of only to students in apprenticeships with a mandated employment contract (Kraak 2004). The decline was rapid, apprentice training peaked in 1985 with 13 500 artisans but declined to only 2 500 by 2004 (Kraak 2009).

In the post-apartheid period, enrolment in NATED programmes for both employed and pre-employed learners has continued to be the dominant form of TVET provision. By 2002, 86% of enrolled students at public TVET Colleges entered NATED programmes (Powell & Hall 2004). Since 2007, these public colleges have offered a range of programmes from the traditional N1-N6 programmes associated with apprentice and artisan training, to outcomes-based learnership qualifications, National Senior Certificate (secondary school Matric) programmes, a range of skills programmes, CBMT (competency-based modular training), industry-specific training, trade test preparation and testing, higher education certificates and bridging courses, and the flagship theoretical National Certificate Vocational (NCV) programmes. Traditionally associated with the important task of artisan training, TVET colleges still prepare artisans in the engineering disciplines such as construction, electricity, metalwork and modern mechanics, but they now also provide training in intermediate-level skills in a range of occupations such as information technology, business studies, hospitality, tourism, educare and other caring professions (e.g. development studies and law/policing), as well as various second-chance programmes for youth.

In addition, a new programme, the National Certificate: Vocational (NCV) was introduced into the college system in 2007 as a new, modernised, flagship programme and colleges were asked to phase out the N-programmes (see Mashongoane, this volume). This decision impacted on NATED enrolments as Cosser et al. (2011) show through the decline in enrolments from 139 251 learners in NATED programmes in 2007 to only 89 473 learners in 2009. The re-introduction of the NATED programmes from 2010 following an outcry from industry however, was accompanied by National Student Financial Aid Scheme (NSFAS)

bursary funding, which saw a sharp increase in the number of students entering the N-programmes from 2010 onwards.

The explicit goal of the N-programmes, and of the PSET and TVET sectors more broadly, are to connect learners with the labour market, as mentioned under Objective 2.4 of the White Paper on PSET:

“One of the main purposes of the post-school system is to prepare workers for the labour market, or to enable individuals to earn sustainable livelihoods through self-employment or establishing a company or cooperative. Everyone should be able to make a living for themselves and contribute skills to a developing economy”.

In line with this objective, the National Skills Accord (DTI 2011) commits companies to providing 12 000 internship/apprenticeship opportunities to TVET college graduates. Ministerial targets have also been communicated to colleges requesting that they track students, and graduate placement targets have been set for colleges. Currently however, there is limited data on the absorption of NATED graduates into employment (apart from Cosser 2003, and Gewer 2009). Anecdotal reports are conflicting in terms of the value of the NATED qualification within industry. Some accounts suggest that employers value the N-qualifications above the NCV while others contend that the NCV is finding purchase with employers (see also Mashongoane, this volume).

On the demand side, the skills development strategy of South Africa has increasingly emphasised the critical need for intermediate-level skills in the economy and the constraints on growth and economic inclusion due to the small size of the TVET college sector. On the supply side, the White Paper for a Post-School Education and Training System (DHET 2013) anticipates enrolments to increase to one million by 2015 and to 2.5 million by 2030 from its 2013 base of about 650,000 headcount enrolments. One of the aims of the White Paper is the formation of ‘a single, differentiated but highly articulated’ post-school education and training system which contributes to an inclusive growth path by connecting young people and adults to work and higher education through education opportunities and the upgrading of their skills. This policy objective is intended to make education more relevant to the needs of the economy by promoting better articulation and partnerships between post-school education systems (see also Lolwana, this volume), meeting the needs of the South African

labour market, and becoming more relevant to the social and economic transformation imperatives of South Africa.

Comparative Studies on TVET Graduate Destinations

In many developing countries TVET is seen as an essential element of economic upliftment through technological advancement and in reducing high levels of unemployment (Essel et al. 2014; Günbayi 2015; Harris 2014; Ibrahim et al. 2012; Khalid 2015; Mwaura & Mwangi 2015; Ngure 2013; Pierre 2012; Raimi & Akhuemonkhan 2014). In many contexts, however, TVET qualifications still have a low status in comparison with academic degrees at the same levels and a vocational certificate is often associated with low income work, low school achievement, and second chance or second choice education (Oketch 2007; UNESCO 2013).

Internationally, some research has found that TVET education has had limited impact on employability or broader development goals (Raimi & Akhuemonkhan 2014) and that both domestic and multi-national firms report low levels of satisfaction with TVET education (Bappah & Medugu 2013: 1). The reasons for this have been attributed to the TVET system itself, which is seen as failing in primarily two areas. First, employers often view the TVET curriculum as outdated and as preparing students poorly for the world of work, being rigid and irrelevant to industry, and creating a mismatch between the skills produced by the training institutions and those demanded by industry (Ngure 2013: iii). Second, TVET education is seen as failing to produce sufficiently skilled workers that can make an impact on the economy by addressing the shortage of qualified workers such as engineers and technicians. The TVET sector has been criticised for failing to supply developing countries with trained workers for the growth or revival of manufacturing (Triki 2013: i).

A key concept within this research on TVET education and the labour market is the notion of 'transitions'. This term has itself come under scrutiny, with some holding that the metaphor is inadequate for describing current student progressions. Other terms like 'trajectory' and 'pathways' similarly are metaphorically inadequate. The difficulty with these terms is that life course research studies show that students tend to 'zigzag' (Swartz et al. 2012; van Rensburg et al. 2011) through the post-schooling system rather than follow a linear pathway. These non-linear pathways include oscillation between (full or part-time) education and (full or part-time) work or a combination of work and study alongside leisure and family obligations

(Pollock 2002). Furthermore, the idea of a 'pathway' assumes that such pathways exist or that adequate institutional arrangements exist, and transitions presuppose that youth can, or even want to, reach formal employment as a destination. Pollock (2002) argues that transitions are often qualified by terms such as 'fractured', 'fragmented', 'protracted', 'blocked', 'incomplete', 'delayed' and 'cyclical', so often that these 'exceptions' may be becoming commonplace (see also Brzinsky-Fay 2014; Furlong 2009).

The general lack of research which tracks the destinations of TVET completers in many African countries notwithstanding, the available empirical work raises a number of issues around TVET 'college to work' transitions. For example, the level at which students terminate their college studies appears to impact on employer perceptions of TVET college graduates (Barnes & Meadows 2008; Lomey & McNamara 2008) as the minimum required exit qualification appears to be too low for some industries. Furthermore, work experience contributes significantly to increasing students' subsequent employment, suggesting that work-based education routes are still relevant (OECD 2016).

Employment Outcomes among South African TVET Completers

One of the earliest and most comprehensive surveys of South African TVET college completers (Cosser 2003) found that both students and employers rated the TVET curriculum and TVET educators very highly. Cosser (2003), however, noted that this assessment was incongruent with the poor labour market outcomes of TVET completers. Thus, whilst completers and the colleges themselves were viewed positively in the research, graduates were still unable to find work. The Cosser (2003) study is now dated, and its results have not been revisited, leaving a gap in the research data, but the finding stands in stark contrast to the general understanding of a shortage in artisanal skills in South Africa.

It is possible that employers and students were correct in their assessment, but that a strong TVET curriculum and TVET educators are insufficient for a positive labour market outcome, and that the low absorption of TVET completers into employment is related to other factors. Allais & Nathan (2012) and Vally & Motala (2014), for example, suggest that the weak return on employment, rather than being a failure of the TVET sector is a function of a reduction in labour market demand that has resulted in, quite simply, an insufficient number of jobs. This is further supported by studies that show that even students with some form of artisan

training in areas of presumed skills shortages have been unable to find jobs after graduation (FETI 2013c; Mukora 2009). While it has been argued that this is due to lack of sufficient or appropriate work experience (Breier 2009, p1) this requires further investigation.

Evidence on these matters is at best contradictory. On the one hand, low absorption rates for college graduates exist in areas that are reportedly areas of skills shortage (e.g. Akoojee 2010; FETI 2013b; Mukora 2012), and employer surveys on the NATED graduates in their employ express high levels of satisfaction with college graduates that they had employed (e.g. Cosser et al., 2003; FETI 2014). But, on the other hand, employer organisations and public officials on public platforms have reportedly denounced the quality of TVET colleges.

Employer studies have suggested that problems with the implementation of curricula as well as the lack of soft skill provisioning may explain the poor employment outcomes associated with a TVET qualification. One recent study (FETI 2012) found that, while employers proposed changes to the curriculum that entailed more work exposure, more updated or job specific knowledge, and career guidance, they generally appeared to regard these suggestions as curriculum enhancements rather than fundamental flaws to be addressed. In several studies, employers have emphasised the importance of non-cognitive, non-technical skills such as motivation, reliability and hard work in addition to a broad understanding of the sector and how it is organised (Handel 2003; FETI 2012).

Gewer's (2010a) large scale tracer study of cohorts of pre-NCV students from 17 colleges suggested that poor labour market outcomes varied along a number of factors. Gender, province and high school results affected the likelihood of obtaining employment. In terms of the factors which were positively associated with finding employment, work experience during college and family connections (social capital) were identified as important. This is consistent with Altman's (2007) observation that Black African students remain disadvantaged by limited access to networks and prior work experience.

At the broader level, systemic rigidities and constraints within the TVET system itself are likely to be playing some role in limiting the employment prospects of completers. TVET colleges are bound by national curricula, national examinations and national pass and entry requirements. College offerings are thus limited by funding linked to nationally approved programmes. Moreover, various mandates of the college such as linkages with businesses,

work based experience, graduate tracer studies and the like are still unfunded mandates in the sense that earmarked funding is not made available for these within programmatic funding. Colleges face capacity and other constraints in terms of creating the conditions for enhancing college to work transitions, particularly in the Engineering fields where there are high levels of 'opt out' (opting to leave at lower exit points) and drop-out (not completing), or failing for a range of reasons (Papier 2009). The N-programmes lack a significant work-preparation programme and a consistent practical component, both of which are important for the workplace. Moreover, functions such as work experience, graduate placement, stakeholder management and curriculum responsiveness are uneven across colleges (FETI 2014).

On the positive side, the limited available research in South Africa provides emerging evidence of potential factors that can enhance TVET college to work transitions. First, access to work experience programmes or work exposure are positively correlated with future employment (FETI 2012; Gewer 2010b). Second, employer preferences appear to include higher marks and higher levels of education than the college minimum for certain sectors. Third, employers tend to be favourably disposed toward particular TVET programmes (for instance the NATED/N-programmes). Fourth, individual personal skills such as students' tenacity in seeking work, and their attitude on the job, for instance initiative and work ethics, appear to play a role in recruitment and retention (FETI 2014). Fifth, students are more likely to find employment via family and friends, albeit this is less likely to lead to relevant (i.e. in line with their training) and/or longer term employment than college linkages.

Thus the relatively small literature base suggests that college to work transitions in South Africa are limited. On the one hand there are signs of increased college commitment to linkages with workplaces. On the other hand, colleges operate in an environment which potentially involves an uncertain, fluctuating and sometimes hostile labour market (Vally & Motala 2014), low labour absorption rates, high unemployment (Statistics South Africa 2016), and weak labour market outcomes (Cosser et al. 2003; Gewer 2010). Allais (2011) and Wedekind (2014) have further shown that employers tend to focus on immediate short term skills and structural economic constraints are not well represented in the literature. They argue for deeper understanding and more theoretical work to understand effective linkages between education and the economy (Vally & Motala 2014), which include the contribution

of education to society as opposed to dominant human capital theory approaches. While the authors agree with this approach and note methodological concerns raised by Allais (Allais 2011, Allais & Nathan 2012) on supply-side surveys in the absence of demand driven factors, there is still a critical paucity of knowledge on current learner destination pathways within South Africa's TVET systems.

The Study Methodology

The research presented in this chapter was based on a graduate tracer study design in which graduates from NATED Engineering and Business Studies programmes at public TVET colleges were surveyed. The study targeted N6 Business graduates and N3 and N6 Engineering graduates from all 50 public TVET colleges across South Africa. The sampling frame was drawn from the Skills Accord lists of work placements provided by the DHET, and was supplemented by student contact data obtained from 26 TVET colleges (50% of the total number of colleges responded to a request for this information) as well as by the contact data obtained from 4 colleges in the Eastern Cape. Subsequent to cleaning of the data there were 19 377 records with contact phone numbers.

The intended sample was 20% of the 2013 graduates (total number of completers), stratified in terms of the population of completers per province, programme area and level of programme (N3 and N6). The term 'graduates' used in this study refers to students who completed all four subjects for the N3 or N6 Engineering and Business programme, as per the list received from the DHET. The sample was further stratified at the level of the college, with the service provider attempting to call 20% of the dataset provided per college. The telephone survey, undertaken in 2016 achieved 4050 responses. The full details of the study methodology and survey response rates are reported in Appendix A.

Key Findings from the NATED Graduate Destinations Survey 2016

Who participated in NATED programmes at TVET colleges in 2013?

The intention of the DHET and the Department of Education (DoE) before it, has been to establish TVET colleges as 'institutions of first choice', and to provide the historically excluded with opportunities to enter further study. However, there have been very limited tracer studies among TVET graduates to ascertain how social participation and social outcomes are

differentiated amongst target groups. In line with the literature which suggests that there have been changes in the demographics of TVET enrolments, Table 1 below begins by showing that Black Africans form the vast majority of TVET completers.

Even in provinces considered predominantly ‘coloured’ like the Northern Cape and Western Cape, Black African graduates were in the majority (see Table 1). Coloured graduates comprise 2.1% and Whites 1.5% of the total cohort. This result supports the literature on the racial composition of the college sector (Sheppard & Sheppard 2012), and demonstrates that this racial composition is strongly reflected within the N-courses.

Table 1 Weighted respondents – by population group and province, row totals

	Indian/ Asian	Black African	Coloured	White	Total
Eastern Cape	0%	92%	8%	0%	100%
Free State	0%	99%	1%	0%	100%
Gauteng	0%	99%	0%	1%	100%
Kwa-Zulu Natal	1%	99%	0%	0%	100%
Limpopo	0%	100%	0%	0%	100%
Mpumalanga	0%	97%	2%	1%	100%
North West	0%	97%	1%	3%	100%
Northern Cape	0%	71%	28%	1%	100%
Western Province	0%	75%	20%	4%	100%
Total	0%	92%	7%	2%	100%

Notes: The data are weighted.

There are also gender differences in the sample and, in particular, women are slightly over represented (58%) relative to men (42%). This pattern is consistent across the provinces, with female predominance being more pronounced in certain provinces such as the Eastern Cape and Northern Cape, while the gender distribution is roughly equal in provinces such as Gauteng, Mpumalanga and North West Province. More notably, there are stark gender differences in the composition of NATED Business Studies and Engineering Studies completers. Within Business Studies, 72% of all graduates were women, whereas female graduates only constituted 35% of graduates in Engineering. More broadly, the reasons for these gendered patterns of TVET completion require further investigation (see also Mashongoane, this volume).

The age distribution of the study sample was somewhat more homogenous with 77% of all respondents falling into the age category of 15-34 years, with 49% of the cohort aged 25-34 years. Less than 5% of respondents were aged between 35 and 44. This pattern is consistent across 'race' groups. It is important to note that the figures refer to respondents' age at the time of interview rather than their age at enrolment or graduation (3 or 4 years earlier). This result suggests that the N-programmes are generally attracting a younger cohort of student. However, the N-programmes are not exclusive to young people and there is evidence of an older minority returning to education.

The vast majority (95%) of the cohort had achieved a Matric certificate before completing a NATED qualification. Most (72%) achieved a Matric Certificate followed by 17% with a Matric at Diploma Pass level and 5% with a Matric at University Pass Level. Only 3.9% of the cohort entered NATED before completing Grade 12 at high school. It is surprising that so few students were early school leavers, but this could be the result of a larger cohort of Business Studies NATED students, where the programme starts at N4 level and where the entry requirement is Matric. NATED Engineering courses start at N1, which students would be able to access with a Grade 9 school certificate. However, students who had already achieved Grade 12 could also enter N1 Engineering programmes in order to embark on a trade related pathway. Students with passes which enable them to access university degrees or diplomas are not absent from the sample, but they are in the minority.

In summary therefore, the cohort of NATED students in 2013 were mainly, though not exclusively, Black Africans, were under 35 years old, and most had a Grade 12 ('matric') school leaving certificate. Women were over-represented in the Business programmes and under-represented on the Engineering Studies programme.

TVET completion and further study

Only 17% of the sample indicated that they were studying at the time of the survey in 2016. Within the group who were currently studying, 45% were undertaking a university qualification, 24% were enrolled in a learnership, 16% were undertaking an artisan qualification (NATED courses) and 7% were studying an NCV qualification. Of those who were studying towards a non-university qualification, just over a third (33.9%) were re-enrolled at TVET colleges to undertake another N programme or NCV programme despite the fact that they had already achieved an N6 qualification. An analysis of their previous and their current qualifications showed learners moving through complex pathways into their NATED programme and then from their NATED programme into further study. For example, the main reasons provided for engaging in further study was reported as being to achieve higher qualifications (55%); to further their career options (35%); and personal interest (9%). In response to a question on future plans, the majority of respondents' first option was to continue studying (47%), followed by those wanting to further their careers (29%). A smaller number wanted to open their own businesses (13%).

As part of the study, student migration was also analysed. More than half (57%) of the NATED graduates stayed in their home town to study and remained there after completion. Just under a quarter (23%) migrated to another province to study and remained in that province after graduation. Roughly 9% studied in their home town but then moved to another province after completion. About 8% migrated to another province to study and then returned home after graduation and only 3% migrated to another province to study followed by a move to a third province to work. The overwhelming reason provided for migrating was better job opportunities (73%), followed by study opportunities (13%), and wanting to move back home (9%).

Job placement support

Given the historical role of the NATED programme as a theory course which was structurally linked to the workplace through learners who were in employment contracts (learners are now largely pre-employed), respondents were asked about the kind of college support that assisted them with finding a job. Graduates' experiences differed among colleges and among students at the same college, but it should be noted that at each college there were graduates who reported receiving one or other form of support. The percentage of graduates per college and the percentage per type of support received by NATED graduates varied across colleges. The results suggest that support is provided by the colleges, but regarding the type of support received, less than half of the graduates received practical training (45%), 42% received career guidance, and only 37% reported receiving work exposure. While there is evidence that support programmes are in place in some colleges, it is by no means uniform, and more importantly, there is no data to assess whether these figures represent progress from a low base or whether such curriculum enhancements had existed before. Further study is needed to consider the factors that affect the provision of these support enhancements as well as the reasons for the unevenness of experiences among and within the colleges themselves.

Employment Transitions

A central concern of the research described in this chapter was the destinations of graduates and their pathways taken upon exit from the college. This section now examines the absorption of TVET completers into employment and their labour market outcomes. It considers whether graduates obtained employment after exiting college, and whether they were still employed at the time of the survey in 2016. We report on how many jobs graduates held between December 2013 and June 2016 and then proceed to describe their types of employment, employment stability, and remuneration.

A key finding of this research was that 52% of all 2013 Engineering and Business Studies NATED graduates were employed at the time at which the survey was undertaken and 48% were not employed at the time. The term 'employment' here denotes and includes those who were employed on a part-time basis, those who were interns, and those undertaking apprenticeships.

There were no appreciable differences between Engineering and Business Studies graduates' employment rates when disaggregated by level. N6 Business Studies graduates had a 56%

employment rate compared with N6 Engineering graduates who had a 58% employment rate. There was however a marked difference between N3 Engineering and N6 Engineering employment rates, with N3 Engineering graduate employment at 48% being significantly lower than N6 Engineering graduate employment at 58%.

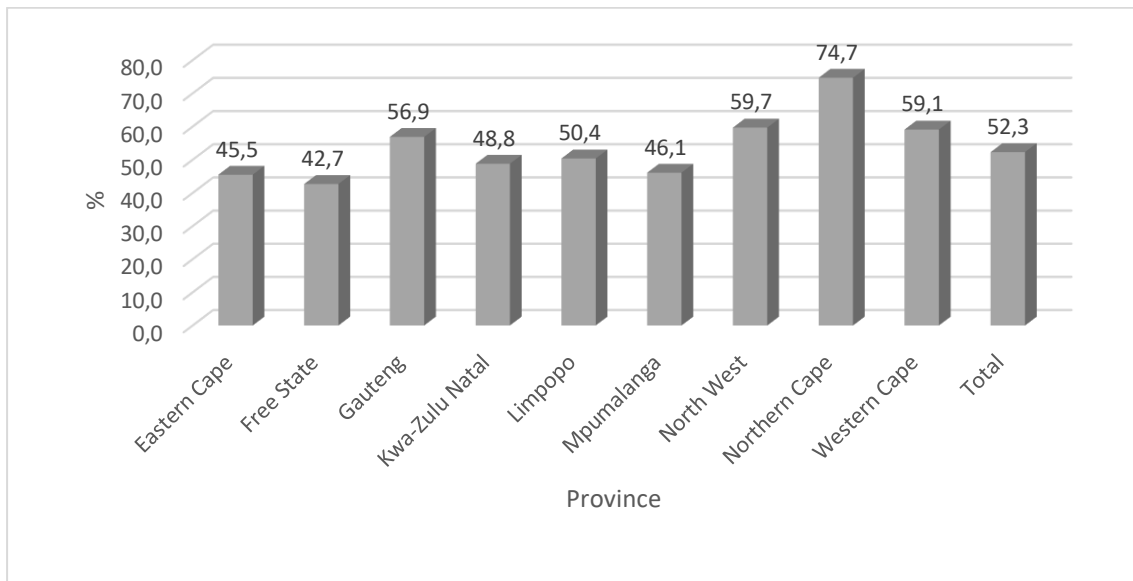
The disaggregation of employment rates by gender shows that male NATED graduates have slightly higher employment rates than females, with males having an absorption rate of 54.2% and females a rate of 49.8%. There are large differences in the probability of employment in terms of race - the employment rate for Black Africans was just over 51% whereas White and Coloured graduates had 88% and 71% absorption rates, respectively. However, the numbers of White and Coloured graduates in the sample were very small (1.5% and 2.1%, respectively, of the total cohort of completers).

A disaggregation of employment rates by province of study for the NATED cohort (see Figure 1) shows that the highest employment rate was in the Northern Cape at 74,7% albeit this reflects a very small number of graduates, followed by the North West Province at 59.7%, the Western Cape at 59,1% and Gauteng Province at 56.9%. The lowest employment rates were found in the Free State (42.7%), Mpumalanga (46.1%), Eastern Cape (45.5%) and KwaZulu Natal (48.8%). In total, nearly two thirds of NATED graduates were employed within private companies compared to one third employed by government. This indicates significant recognition of the NATED qualifications by business and industry.

Employment rates were also analysed against the NATED graduates' prior high school qualifications. NATED graduates with high school qualifications had an average employment rate of 49%, which increased to 53% for graduates with a Matric Certificate and 55% for graduates with a Matric Certificate that provided access to university. Employment rates also varied according to the course of NATED study undertaken at the colleges. Within Engineering Studies, NATED graduates with N6 qualifications had higher employment rates at 57% compared with N3 graduates at 48%. For NATED Engineering programmes, graduates in Manufacturing reported 100% employment, although this is based on a small number of cases. This was followed by Electrical Engineering (59%), Chemical Engineering (57%), Fitting and Turning (53%) and Mechanical Engineering (51%). The NATED Engineering programme with the lowest employment rate was Civil Engineering with an employment rate of 46%.

Within NATED Business Studies programmes, Public Management (62%), Financial Management (61%), Management Assistant (58%) and Human Resource Management (57%) graduates had the highest employment rates. Business Studies programmes with the lowest employment rates were Public Relations (40%), Accounting (50%) and Business Management (51%). The above figures need to be treated with caution however as both the highest and lowest employment rates per programme are based on very low graduate numbers.

Figure 1: NATED graduate employment rates by province



Notes: The data are weighted.

The duration of employment contracts was also investigated through the survey. Of the 1,576 graduates who were employed at the time of the survey, 530 (34.4%) were employed in internships or apprenticeships. Over a quarter (26.5%) were permanently employed and 23.7% were employed in long term contracts. The remaining completers (15.4%) were employed in short term contracts of less than a six-month duration. In an analysis of employment contracts by age, the data showed that younger graduates had much lower rates of permanent employment (21% compared to 60%). The majority of young people aged 15-24 years were employed in internships (35%) and long term contracts of more than six months (25%). The findings also showed that more women were employed as interns or apprentices in comparison with men, and fewer women occupied permanent jobs compared with men. In terms of race, 84% (only 32 people) of White employed graduates were in permanent posts

compared with only 24% of employed Black Africans. Among Coloured graduates in employment 43% were in permanent positions. The North West Province with 45% and Western Cape Province (34%) had the highest percentages of NATED graduates in permanent positions. Limpopo Province and the Eastern Cape Province had the lowest percentage of permanently employed graduates at 18%. The Free State and Eastern Cape had the largest proportion of graduates employed in internships or apprenticeships with 52%.

NATED graduates were also asked how many jobs they had held after graduating from TVET Colleges. Nearly 65% of employed NATED graduates reported having had only one job since graduating in 2013 and 27.5% held 2 jobs. Further panel studies and longitudinal studies would need to be undertaken to determine the extent of short term employments as opposed to stable, permanent employment.

Nearly two thirds (64%) of graduates obtained employment within one year after graduating from a TVET college and completing their practical 18-month work placement, with 38% employed in the first six months and 26% in six to twelve months. Of the 64% who had obtained employment in the first year, 22% were in an apprenticeship/internship, 9% in short term contracts of 6 months or less, and 33% in either long term or permanent employment. Of the employed graduates, 63% were employed in private companies, and 31% were in government posts, with the remaining 6% being variously in non-profit, informal employment or had missing data. Of some concern is that 58% of all employed graduates took at least six months to find their first job and 32% took over a year to find their first job. The majority of employed graduates (67%) indicated that they were mostly using the skills learned in the NATED qualification in their job, while 27% indicated that they were only partially using skills learned and 6% stated that they were not using any skills learned in the NATED qualification (see also Grapsa et al. and Rogan, this volume).

Only 6% of the respondents indicated that they were self-employed and 31% of this group had employed others. In total 48% of respondents indicated that they were neither employed nor self-employed. Respondents were asked to mention the reason that they had become self-employed. Of 236 self-employed respondents, 46% responded that they could not find a job, followed by 19% who indicated that their qualification enabled them to work for themselves, and 13% who could not find a job linked to their qualification. A further 27% had

a range of other reasons not listed in the questionnaire (i.e. they chose 'other'). This result suggests that lack of formal employment was the most prevalent reason for self-employment. Further analysis however found that self-employment was not only of the survivalist type, with some individuals in the higher income bracket (over R10,000) being self-employed. Whilst most respondents (119 out of 189) in the self-employed category did not provide data on income, 12% of those who did provide data earned over R10,000 per month, 37% were in the R5001-R10,000 category and 21% were in the R3001-R5000 category. 10% of those in the self-employed category earned under R1000 and 20% earned between R1000 and R3000.

In terms of earnings, most (63%) employed NATED graduates earned above R 3 000 per month. While 3.7% earned less than R 1 000 per month, 33% earned between R 1 000 – R 3 000, 28.6% earned between R 3001 and R 5 000, 20% earned between R 5 001 and R 10 000 and 14.6% earned more than R 10 000. From a gender perspective, there are significant earnings differentials. Just under half (49%) of female graduates earned less than R 3 000 per month compared with 28% of males. Only 27% of women earned more than R 5000 per month, whereas 40 % of men earned over R 5 000 per month. There were also differences in remuneration between Business Studies and Engineering Studies graduates. Almost half (49%) of Business Studies graduates earned less than R 3 000 per month compared with a third of Engineering Studies graduates. Similarly, while a quarter (26%) of Business Studies graduates earned over R 5000 and 10% over R 10 000, over a third (37%) of Engineering Studies graduates earned over R 5 000 per month and 16% earned over R 10 000 per month.

Unemployment

This section focuses on NATED graduates who were unemployed at the time of the survey, the length of time they were unemployed and the reasons provided to explain graduate unemployment more generally. As outlined above, 48% of the NATED graduates (1 437) indicated that they were unemployed at the time of the survey in 2016. Within this cohort 93% of the unemployed stated that they were actively looking for a job, and 7% noted that they were not looking for a job (were economically inactive). 5% of unemployed graduates did not answer the question as to whether they were looking for a job. Of the 1 437 unemployed graduates, 29% had been unemployed for more than a year and 46% for more

than two years. The remaining 24% had been unemployed for between six months and one year.

Initially, all those not in paid employment were categorised as 'unemployed' and this was then further refined in subsequent analysis. When cross-tabulated against respondents who were still studying, and respondents who are economically inactive, 36% of the respondents could be considered economically inactive NEETs (not in employment, education or training).

Most (78%) of the unemployed graduates cited a lack of job opportunities as the reason they were not in employment; 20% stated that they did not have the right skills, and 1% stated that they had a lack of interest in pursuing jobs in line with what they studied. Less than one percent reported that not having a Matric Certificate was the reason they were unable to obtain a job. Most unemployed graduates (78%) did not identify which strategies they were pursuing to find a job. Of the 22% who did provide an answer, 96% stated that they were looking for jobs by themselves through agencies and adverts, and the remaining 4% were seeking jobs through contacts (0.3%) and their TVET College (0.7%).

Conclusions: What do these findings tell us about NATED graduate destinations and pathways through employment?

This first attempt at analysing NATED graduate pathways and destinations yielded important and interesting empirical insights, but also critical methodological lessons for future studies of this nature. While some trends were confirmed, for instance the gender disparities between Business Studies and Engineering programmes where female students exceed male students in the former and the reverse gender proportions are true in the latter, there were also surprising findings, for example that the majority of entrants had completed a matric before entering a college NATED programme lower than Level 3. The reasons for the large number of students entering colleges with matric would need further exploration, since it could indicate either that such students were not able to progress to the next level of study at a university (low marks or not meeting subject entry requirements) and were therefore prepared to enter a college programme at a lower level than matric, or, on the other hand, it could suggest that colleges are deliberately targeting Grade 12 school leavers to improve their success rates in light of poor pass and throughput rates, particularly in Engineering programmes where Mathematics is required.

Of equal concern should be the number of N6 graduates who return to the college to enrol for a lower N-level or NCV qualification. Even though the percentage of students to whom this applied was small (less than 5% of the weighted returns), this finding highlighted inefficiencies in the system, and the convoluted pathways that students undertake from school to work. It was clear that the route for young people entering NATED programmes at TVET Colleges is not a linear progression from Grade 9, but often involves a post-secondary school option that is 'cyclical' and 'zigzags' through continuing education and training pathways (Kruss et al. 2011; Pollock 2002).

With regard to migration across provinces, students did so to obtain education and training opportunities but most entered colleges close to home. An exception perhaps was Gauteng where half of the TVET college student body there in 2013 was from Limpopo, as well as a substantial percentage of the students being from NorthWest and Mpumalanga. The Western Cape also appeared to receive numbers of students from the Eastern Cape (many of whom do return to the Eastern Cape). Additional migration for employment after college was relatively small, though there was an indication of migration back to the province of birth.

NATED students received varying levels of additional support in preparation for employment (such forms of support are currently not funded by the state). Of some concern were the low levels of practical training, career guidance, and work exposure provided by TVET Colleges, and that exposure to support programmes varied greatly across provinces and within colleges. Findings from the literature suggest that these forms of support are critical for successful employment of college graduates, particularly in the absence of social capital and networks as experienced by poor students (Breier 2009; FETI 2013; Gewer 2010a).

With regard to the destinations of NATED graduates at key exit points and the take-up of NATED college graduates within the labour market, just over half (52%) of the 2013 NATED graduate cohort obtained employment after exiting from TVET Colleges. Younger people showed higher rates of employment in internships, apprenticeships and short term contracts than older students who had higher employment rates in long term contracts or permanent employment. There were significant gender and race differences with regard to employment and earnings, in that women were more frequently employed in short term contracts and

internships than men, and fewer women were employed in long term contracts and permanent employment. In spite of strides towards gender equality in the country, women TVET graduates still appear to be earning less than men.

With regard to employment, it was heartening to find that employment experiences for those graduates in employment at the time of the survey had for the most part been fairly stable, with the majority reporting that that they had only held one job since graduating, or to a lesser extent two jobs. The link between academic achievement and level of earnings was confirmed by the finding that graduates with a university entrance Matric pass earned more than graduates with only a Matric pass.

The desired destination for most graduates appeared to be formal employment, as the numbers of those reported to be in self-employment were very low. Furthermore, the private sector provided employment to far more NATED graduates than the public sector, pointing to either increased privatisation of former public sector enterprises, or that NATED qualifications continue to be recognised and valued by industry and business. Further research is required to ascertain reasons for increased private sector employment of NATED graduates.

While the large majority of NATED graduates not in employment at the time of the survey were actively job seeking, some had been unemployed for more than a year and almost half had been unemployed for two years. Unemployed graduates cited the lack of job opportunities as the primary reason for their unemployment, a finding in line with Allais & Nathan's (2012) assertion that there are not necessarily sufficient jobs for TVET graduates with mid-level skills, and that demand side factors are significant causes of unemployment. Nonetheless, from the supply side perspective, TVET colleges face a number of challenges in proactively responding to labour market needs. In particular rigid and out-dated curricula, together with low levels of autonomy and limited funding to create effective practical and workplace experience (Gewer 2010a) are likely to be key constraints. Despite these challenges, the NATED student cohort interviewed for this research were generally positive about their learning experiences at the college, even though these did not translate into employment for roughly half of the sample. Only a small percentage of the cohort were

continuing with further studies after completing their NATED qualifications, of which a minor proportion were undertaking university qualifications. In spite of the small numbers of the latter group, it is encouraging evidence that NATED programmes do assist at least some students to progress into higher education.

A significant outcome of the research was the learning related to the methodology. The importance of tracer studies for ascertaining impact and informing policy, particularly in relation to youth development, training and employment, is potentially huge, hence the critical need for formulating effective and efficient strategies for data gathering. Currently the national databases on enrolment and achievement are held by separate authorities and would need to be brought together in a complementary manner that enables students to be tracked from enrolment to exit, and allowing unitised records of courses passed, levels and so on, to be drawn. A national EMIS should be able to provide the range of reports necessary for planning and forecasting, and for monitoring and evaluation of performance.

Business Studies and Engineering programmes in both NATED and NCV qualifications have the highest enrolment numbers in TVET colleges, and therefore are worth of scrutiny as to the outcomes they yield. This quantitative analysis of NATED graduates approximately three years after completion offers a window onto the opportunities that have been available to such students, their trajectories upon exiting college, and their perceptions about the value of their college training. Furthermore, this research provides key insights into the type of employment that NATED Business Studies and Engineering students obtained, the nature of the contracts and, to some extent, their earnings. In the chapter which follows immediately hereafter (see Mashongoane herein), a light is shone onto the destinations of a group of NCV Engineering students, their pathways and their aspirations, and points to the need for more detailed and representative studies in this regard.

The NATED data here shows that there are growing numbers of young people enrolling in TVET colleges, a motivating factor cited as being 'interest in the field'. For more than half of the successful 2013 cohort there were spaces for gaining experience in the workplace and generating an income, after varying intervals while job seeking. A noteworthy finding is that for over half of the graduates who obtained employment, most were employed in stable jobs with private business and industry. This suggests that NATED programmes are still recognised

by industry despite the problems associated with these programmes. Only a small percentage of the cohort indicated that they were self-employed or continuing with studies to improve their qualifications and increase their chances of finding employment. However for a large number of the 2013 cohort who had managed to complete their courses, their interest did not translate into meaningful work opportunities, and this should be of great concern going forward. It is evident that far more creative ways will need to be found to support TVET graduates into sustained employment to avoid the 'revolving door' syndrome of returning students, and to create places for new enrollees. But it is also important to keep alive the promise of improved life chances that students perceive education to offer. We cannot allow our youth to lose hope when, after overcoming all manner of obstacles to finally complete their courses, they are still faced with limited or no prospects of economic participation. A range of reasons for this have been put forward in the public domain *inter alia* by economists, but the evidence in this study would seem to indicate that there is still much within colleges' and employers' power to change, for instance, in training more actively towards self-employment, and in addressing gender discrimination in the workplace. The research methodology for this research has been included as an appendix at the end of the thesis.

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Chapter 5

Title: Exploring transitions from school to TVET Colleges by youth at risk: A case study of a South African education and training intervention

Needham, S. 2019. Submitted to the Journal of Educational Studies

Abstract

Young people in South Africa face a bleak future if they do not complete formal schooling as South Africa continues to experience high youth unemployment rates. Options for young people who have dropped out of school are limited, and furthermore, career options in occupational education and training fields are not well known or publicized among school learners and their communities. This article focuses on an intervention that aimed to provide young people who had repeatedly failed at high school, an opportunity to obtain entry level occupational skills in South Africa's public Technical Vocational Education and Training (TVET) Colleges. A capabilities approach (Sen 1990) is used to analyse the ways in which young people have been assisted to achieve alternative career and learning pathways for their future participation in society as young adults. The article concludes that TVET Colleges perform an important institutional agency role in supporting second chance opportunities for youth at risk, in addition to their mandated role of providing education and training for employment.

Keywords

Youth at risk, Technical Vocational Education and Training, capabilities, post-school education and training, educational transitions

Introduction

Youth failure rates at schools have remained high in South Africa's post-apartheid years. Mlatsheni and Leibrandt (2011) found that two-thirds of students who entered Grade 1 in 1994 had not completed Matric by 2006 and that only 5 % of this cohort were eligible to enter university in 2007 (123). Van der Berg and Gustaffson (2017) note large dropout rates from school from the age of 16, particularly in historically black schools. They also show that in 2013, 54 % of learners enrolled in Grade 1 in 2002 dropped out before Matric in 2013 (17). While these studies show that completion rates of formal schooling are steadily increasing,

high dropout rates are still concerning. This article focuses on ‘youth at risk’⁴ in South Africa and shows that young people face significant challenges in obtaining employment or escaping poverty if they are unable to access further education and training opportunities after they have exited from formal schooling. The focus on ‘youth at risk’ stems from a university institute’s (of which I am a member) impact study of a provincial education department intervention to place over 2 000 young people within TVET Colleges in entry level skills programmes. All of these young people had repeatedly failed the first two to three years of secondary school and thus constituted youth at risk. Youth unemployment is a global phenomenon and the article identifies TVET policy debates at international and local levels that aim to counter youth unemployment. Many of these debates suggest a shift away from human capital theories towards a capabilities perspective, initially developed by Sen (1990), and this theoretical frame is applied here to analyse an education and training intervention for youth at risk at TVET Colleges in South Africa. The findings of this intervention show that relatively few of these youth obtained employment which in human capital development terms does not indicate a strong return on investment. From a human capabilities perspective however, the research reveals that TVET Colleges played a critical role in fostering further learning opportunities that allowed vulnerable youth to continue on career and learning pathways.

Scale and scope of youth at risk in South Africa

The draft National Youth Policy 2015-2020 (National Youth Development Agency, 2015) provides a bleak depiction of the state of South Africa’s youth and notes that of the 1 million young people exiting the school system annually, 65% of youth do not exit with a Grade 12 certificate (p. 11). In addition the Quarter 4 Labour Force Survey of 2014 (Stats SA, 2014) showed youth unemployment at 67.4 % (p.17). Specific research was undertaken to ascertain the scale and scope of youth at risk in South Africa and the extent to which this data was available from public statistical information (Branson 2018). The results of this research, based on 2011 Census and the 2016 Community Survey data, showed that young people aged between 15-24 years who had completed Grade 9 increased from 7.6 million in 2011 to 8.5 million in 2016. In 2016, about 3.5 million of these youth were in school, and a further 3.2

⁴ Youth at risk are defined in this paper as young people who have completed 9 years of schooling but are not engaged in post-school education and training or employment.

million had completed matric. The remaining 1.75 million were youth who had completed grade 9 and could potentially enroll in TVET Colleges or Adult Basic Education and Training Programmes within South Africa's newly created community colleges (Branson 2018). The data shows that only around 150 000 of this group did so, meaning that 1.6 million young people were not enrolled. However, South African data on 'youth at risk' is fragmented and incomplete since it provided information on young people's completion of formal secondary schooling, but there was no information on reasons why young people did not enter community colleges or TVET Colleges.

Completion of schooling is directly linked to employment and self-employment prospects in South Africa. Mlatsheni and Leibrandt (2011) cite the 2006 Global Entrepreneurship Monitor, which shows that adults with tertiary qualifications have the potential to create 2.5 times more jobs than those who have completed secondary education and more than 11 times than those who have not completed secondary school (Mlatsheni and Liebrandt, 2001, p. 122). Cloete et al (2009) showed that young adults with tertiary qualifications were five times more likely to obtain employment than those who had completed secondary school. There are also direct correlations between poverty and youth at risk. Branson (2018) shows that 65% of 'youth at risk' who are not enrolled in education and training or employment live in households that are below the upper poverty line of R 1042 per month. 44 % of 'youth at risk' live in households that receive social grants. Only 78% of these households have access to electricity and 65 % of them have access to running water. 'Youth at risk' therefore comprise a vulnerable group, especially if they are unable to access post-school education and training opportunities.

Youth unemployment is a global trend with youth three times more likely as adults to be unemployed. The number of young people who are not in employment, education and training (NEET) is estimated globally at 21.8 % (ILO 2017, 1), with South African youth unemployment figures being higher than global averages. The following section turns to an analysis of global and national policy debates about the potential of TVET to provide education and training opportunities for post-school youth.

Current TVET debates

Global policies on TVET have begun to move away from human capital development theories, to suggest an emphasis on sustainable development and human capabilities (Sen 1999), which it is averred, outweigh the traditional importance of TVET in preparing students for employment (Powell & McGrath 2014: UNESCO 2015). UNESCO (2015) citing a vision for TVET set by the Bonn Declaration in 2004, states that:

Since education is considered the key to effective development strategies, technical and vocational education and training (TVET) must be the master key that can alleviate poverty, promote peace, conserve the environment, improve the quality of life for all and help achieve sustainable development (p. 13).

A second Bonn Declaration on Education for Sustainable Development (ESD) in 2009 that builds on the earlier 2004 vision is shown below:

ESD helps societies to address different priorities and issues inter alia water, energy, climate change, disaster and risk reduction, loss of biodiversity, food crises, health risks, social vulnerability and insecurity. It is critical for the development of new economic thinking. ESD contributes to creating resilient, healthy and sustainable societies through a systemic and integrated approach. It brings new relevance, quality, meaning and purpose to education and training systems. It involves formal, non-formal and informal education contexts, and all sectors of society in a lifelong learning process (Bonn Declaration 2009).

The adoption of these declarations and subsequent UNESCO policies suggest a move away from previous human capital approaches that see the primary purpose of TVET as training people for employment in the formal labour market, towards a broader sustainable development focus including informal economies, the environment, health and social structures. This shift is mirrored in other transnational organisations such as the Organisation for Economic Co-operation and Development (OECD), who argue that TVET Colleges need to provide more holistic support to students in secondary schools, in order to allow for better transitions, ‘...and removing dead ends’ (OECD 2012, p. 90).

TVET policies in the Southern African Development Community (SADC) region have not yet reflected this global shift in approach (UNESCO 2013). McGrath (2012) argues that TVET policies in Africa reflect outdated modes of human development through their primary emphasis on addressing unemployment and skills shortages. In South Africa, the government is currently formulating a National Plan for its Post-School Education and Training Sector to implement the recommendations of the White Paper on Post-School Education and Training (WPPSET 2013). While the White Paper announced an ambitious expansion enrollment target for TVET Colleges whereby 2.5 million young people should be enrolled by 2030, recent estimates provided by the National Treasury project a more realistic enrollment target of 1.25 million young people in TVET by 2030. Currently there are approximately 780 000 young people enrolled in TVET Colleges. The White Paper (2013) for TVET is primarily framed in economic terms, albeit that social inclusion and equity issues are acknowledged, stating that the 'main purpose of these colleges is to train young school leavers, providing them with the skills, knowledge and attitudes necessary for employment in the labour market' (p. 11).

An important shift in the White Paper (2013) is that young people are encouraged to enter Community Education and Training Colleges that require lower entry level qualifications than TVET Colleges. Community colleges are intended to provide second chance education and training options, whereas the policy rhetoric for TVET Colleges focuses on employment and employability of graduates to contribute to economic development. There are approximately 270 000 young people enrolled in Community Colleges (the former Public Adult Learning Centres), which is the smallest post-school education and training sector in South Africa. The White Paper notes that Community Colleges will 'primarily target youth and adults who for various reasons did not complete their schooling or who never attended school' (p 21).

International and South African TVET policies emphasise the primacy of youth as key beneficiaries of TVET. Global TVET policies stress a more holistic youth centered approach through a focus on education and training for sustainable development rather than formal economic employment, whereas South African TVET policies emphasise TVET for youth participation in the labour market. For youth at risk, South African policy proposes community colleges rather than TVET Colleges as spaces for second chance opportunities. In light of the scale and scope of youth at risk in South Africa, and the limitations of human capital

approaches, the following section outlines key tenets of the capabilities approach as an alternative frame for evaluating a youth intervention.

Sustainable development and capabilities approaches

The idea of educating for sustainable development draws on a human capabilities approach informed by theorists such as Sen (1999), which prioritises human development above economic development. While sustainable development has also been a response to the growing strength of the environmental critique of conflating development with growth, Sen's approach to human freedom has had considerable impact. Sen's theoretical approach assumed prominence following the critique of human capital approaches to TVET promoted by theorists such as Psacharopoulos (1985), whose research was used by the World Bank to justify an assertion that primary education offered better economic rates of return than TVET in the 1980s. Sen (1993) defines the term capabilities as a representation of the 'alternative combinations of things a person is able to do or be – the various 'functionings' he or she can achieve' (p. 30). In describing freedom as the primary focus of human development, Sen identifies five main freedoms that require both individual and institutional efforts to achieve, namely, 'political freedoms, economic facilities, social opportunities, transparency guarantees and protective security'. Sen views these freedoms as inter-connected whereby social opportunities such as health and education facilities can contribute to economic participation, which in turn increases wealth and contributes to further resources for social upliftment. (Sen 1999). Sen asserts that this perspective of freedom reinforces the role of individual human agency in achieving freedoms for human development, although institutional contributions are acknowledged. Sen and Nussbaum (1993) disagree on the issue of developing a single list of capabilities and functionings that would describe essential human freedoms, which Nussbaum advocates, whereas Sen argues that a single list would have to be over-specified to include all the contexts of human interaction (Nussbaum and Sen 1993, p. 47). Sen readily concedes that his capabilities approach is not a complete theory of valuation in its own right in response to critiques by Cohen (1989), but is a general approach to human development that can be combined with other substantive theoretical approaches and advocates the 'cogency of a particular *space* for the evaluation of individual opportunities and successes' (p. 50).

Robeyns (2005) states that Sen's capabilities approach is 'not a theory that can *explain* poverty, inequality or well-being: instead it provides a tool and a framework within which to *conceptualise* and *evaluate* this phenomena' (italics in original p. 94). Whereas most academic use of Sen's capabilities approach has focused on individual human agency to achieve capabilities and associated functionings, Sen (ibid) refers to the importance of institutions in stating that individual 'opportunities and prospects depend crucially on what institutions exist and how they function' (p. 142). Otto and Ziegler (2006) concur with this view and note that 'educational and welfare institutions as well as other policies should be evaluated according to their impact on people's present and future capabilities' (p. 275). Robeyns (2005) similarly asserts that the conceptual framework of the capabilities approach includes institutions as well as individual human agency and posits that 'for political and social purposes it is crucially important to know the social determinants of the relevant capabilities, as only those determinants (including social structures and institutions) can be changed' (p. 110).

The capabilities approach has been used to evaluate educational interventions and conditions for learners to achieve educational success (Hoffmann 2005, Walker & Unterhalter 2007, Wilson-Strydom 2011, Powell 2014, McGrath and Powell 2014). A critical challenge has been to identify lists of capabilities and associated functionings that can evaluate whether learners are capable of obtaining educational freedoms within their chosen course of study. Hoffmann (2005) drew on the Dakar Framework for Action (UNESCO 2000) and the Delors Commission (1996) that identified four pillars of learning aligned to a life-skills education and capabilities approach namely: learning to know (informed action); learning to be (individual agency); learning to live together (interpersonal skills), and learning to do (practical application).

Within a South African context, Wilson-Strydom (2011) draws on Walker's (2006) approach that identifies appropriate contexts to develop illustrative capabilities for education. Wilson-Strydom argues that a singular focus on educational outcomes at universities can lead to 'new forms of injustice because it is assumed that once equal resources are provided (such as a place at university or financial support) all students are equally able to convert these resources to capabilities and functionings' (p. 416). Powell and McGrath (2014) critique TVET policy aims that solely focus on creating employability and argue that a capabilities approach can be used to understand ways in which TVET institutions can contribute to 'poverty alleviation, unemployment reduction and well-being enhancement' (p. 13). Powell (2014)

derived a list of capabilities and functionings for South African TVET College learners based on a sample of learners, which drew on Sen's (1999) capabilities approach and Archer's (1998) theory of analytical dualism.

This brief explanation of the capabilities approach advocated by Sen (1999) has shown that institutions contribute directly to individuals' ability to achieve capabilities and functioning that will allow them to progress in life and well-being. From an educational perspective capabilities theory has been used to identify a range of capabilities that position learners and institutions in ways that supercede the traditional human capital approaches of education for employment. This article draws on a capabilities theoretical approach developed by Powell (2014) to identify ways in which TVET Colleges can contribute to the development of capabilities and functionings of youth at risk in their achievement of new career and learning pathways.

Capabilities theory in a South African TVET College context

Powell (2014) interviewed a targeted sample of learners from a TVET College in South Africa over a period of years for her PhD dissertation and identified a number of capabilities dimensions for TVET College learners. Her theoretical approach drew on Alkire (2002), Robeyns (2005) and Walker (2006; 2008). Powell utilised Walker's (2006) five step approach for the development of a capabilities list, namely, (i) identifying important capabilities from the capabilities approach; (ii) extracting capabilities from the relevant policy texts; (iii) interviewing recipients; (iv) engaging with other capabilities lists and (v) debating the lists with others (Powell 2014 p. 203).

These dimensions are listed below together with a brief description of 'valued functionings' associated with their capabilities (p. 206).

Powell (2014) Dimensions of VET Capabilities and Valued Functionings

Dimensions of VET capabilities	Valued Functionings
1. Economic opportunities that matter	<ul style="list-style-type: none"> • Being fairly remunerated • Earning a living wage • Having employment stability and security • Having access to fair and equal opportunities to career progression • Able to make a valuable contribution in the workplace • Able to take pride in their work
2. Active citizenship	<ul style="list-style-type: none"> • Inclusion in political and institutional decision making • Knowledge and understanding of the problems of their community • Able to mobilise resources for change • Strong sense of their own effective agency
3. Confidence and personal empowerment	<ul style="list-style-type: none"> • Being encouraged to live a full life • Being able to encourage others to live a full life. • Having a range of futures as possible aspirations
4. Bodily integrity	<ul style="list-style-type: none"> • Being free from attack and physical harm, including sexual assault, and from the fear thereof • Being safe from the psychological trauma of attack on your person, or other members of the family or community or anyone else

5. Senses and imagination	<ul style="list-style-type: none"> • Developing an understanding and love of the creative arts • Participating in and enjoy in sport that promotes physical wellbeing
6. Recognition and respect	<ul style="list-style-type: none"> • Being treated as a dignified human being • Having self-respect • Not being discriminated against for any reason including religion, gender, race, physical handicaps and age
7. Upgrade skills and qualifications throughout the life course	<ul style="list-style-type: none"> • To have the opportunity to study and learn throughout their lifetime • Having the learning skills required for further study
8. Occupational Knowledge	<ul style="list-style-type: none"> • Having the qualifications needed for entry into the labour market • Having the skills to do a good job • Having the learning skills that allows for experiential learning in workplace

The capabilities dimension list above was designed for a TVET College in South Africa and a key focus of the analysis of this youth at risk case study is to ascertain whether Powell’s (2014) list can be applied to a broader range of students within a number of TVET Colleges. Powell’s study drew on the experiences of twenty learners involved in mainstream education at a TVET College, whereas the following case study focuses on non-traditional students and constituted a ‘youth at risk’ cohort within a number of TVET Colleges. This article argues that Powell’s capabilities dimension list resonates strongly with views and opinions expressed by youth at risk and college staff involved in the following intervention.

Case study of an intervention for youth at risk

Since 2013 a provincial education department in South Africa has funded approximately 2 000 young people who repeated a grade one or more times in their high school phase, to transition into adult education centres or public TVET Colleges, referred to as the Youth Focus Project (YFP). A university institute (of which the researcher is a member) conducted research on young participants who had entered the programme from 2013-2015. A number of learners had been enrolled in Adult Basic Education and Training (ABET) Programmes at Public Adult Learning Centres (now community colleges) and TVET Colleges, but insufficient record keeping at adult learning centres meant that the researchers were unable to locate these learners. Youth participants undertook a range of skills training programmes within five TVET Colleges, including welding, basic engineering and wholesale and retail, all at the college entry level of Grade 9 (National Qualifications Framework (NQF) Level 1). The researchers conducted interviews with 238 participants involved in these programmes, followed by further telephonic surveys of youth aged over the age of 18 involved in this intervention at TVET Colleges. In addition, 187 youth (17% of the total cohort) completed a comprehensive questionnaire, which queried their reasons for entering the TVET College, their experience of the college programme and their learning and career paths on completion of the education and training intervention. A second part of this study was to conduct qualitative interviews with college staff members at five TVET Colleges where this intervention took place for insights into educator and management experiences of this intervention. However, for purposes of this article the focus has been limited to data obtained from the youth.

Findings

Youth experiences of their transition to TVET Colleges

A first critical finding was that over 80 % of surveyed respondents stated that their reason for entering the college was because they had been referred to the programme by the schools they had previously attended⁵. Entry into the skills training programmes offered by the TVET colleges was not a deliberate and voluntary choice aimed at improving their life chances but were rather in response to an instruction from their previous academic schools. Most learners were informed that they needed to leave school and attend a TVET College as their repeated

⁵ 60 % of the respondents identified themselves as men and 40 % identified themselves as women. 98 % chose to identify themselves as Black.

grade failures meant that they were much older than their peers. Responses from some learners indicated that they were not happy with the school's decision, as shown by the following excerpts from interviews:

I was unhappy because I still wanted to attend school. There were children older than me at school. Why did I have to leave school? (Interview, Learner E).

I was very unhappy about leaving school as I wanted to stay and complete my schooling but I was over the age of my grade (Interview, Learner F).

Learner interviews also showed that experiences of poverty and deprivation were common in their formal schooling experience, which contributed to their academic performance, revealed by the following testimony:

My great grandmother passed away 6 years ago, and things became a bit difficult and the circumstances wasn't well either. First our electricity got switched off for a year during winter. There were times we all slept on one bed and not long ago my brother of 13 years got injured and my mother had a miscarriage and that was devastating for all of us. All of these things affected me and my school work, because I would always worry about my mom and siblings at home (Written testimony, Learner B).

Many learners also experienced formal schooling as a negative experience, illustrated by the following examples below:

At school I was anything but clever and it made me feel as if something was wrong with me (Written testimony, Learner C, 2016).

I started being bullied on social media and in the hallway classrooms. For the first year of high school I said nothing thinking it will blow over but I was wrong. I passed to grade 9 and I was still being bullied it got so bad that I started cutting my wrist it went on for a few months so I dropped out of school thinking my parents would say I should go back to school but they didn't (Written testimony, Learner D, 2016).

Interviews with students revealed that exposure to drugs and violence were frequently experienced within the schools they had come from, as well as in their communities. These experiences confirm evidence on the correlation between poverty, deprivation and academic

performance. The interviews and surveys also demonstrated the lack of opportunities for development of capacities to engage in further learning and career pathways.

67 % of the 2015 and 2016 cohorts completed the Youth Focus Project, reflecting a much higher throughput rate than mainstream programmes offered at TVET Colleges (DHET 2015). Despite the fact that most youth at risk did not voluntarily choose TVET Colleges as institutions of first choice, the majority of these youth felt that their decision to enter a TVET College made a substantial difference to their learning and career pathways as noted by the following learner:

I failed at school and we went to [X – my insert] College and I was introduced to Youth Focus Project, which had a huge impact on myself and my career path. I'm grateful for the Youth Focus Project for being there for me and motivating me, because if it wasn't for them I wouldn't have been a good student and an achiever. (Interview Learner A)

Youth at risk were asked what the key differences were between their skills training programmes at TVET Colleges and the previous school qualifications. The majority of the responses received noted that TVET Colleges had better infrastructure and resources, such as computers and textbooks for each learner, which had not been their experience in schools. They also appreciated being in smaller classes. Most learners had school classes of over 40 to 50 per class and learners from two schools reported that their class was built to accommodate 30 students but the actual class size was 70 learners, resulting in many students having to sit on their own school bags (Focus group discussion 2016). Many students felt overwhelmed with the volume of work at the school and most responded that the skills training programmes were more focused, which allowed them to spend more time on each of the 4 mandatory subjects. Key differences in teaching styles were noted, as shown by the following excerpts from interviews with youth at risk:

In college they try to make us understand.

The college will teach you more about what you will become one day.

It was different because in school there is [sic] too many subjects and here in college they push you to do your work in time and there don't shout at you (Learner interviews 2016).

Another learner noted that the staff in the TVET College she attended 'treated us like eggs, holding us carefully' (Learner H, 2016).

Youth learning trajectories within TVET Colleges

The following section focuses on ways in which the TVET College experience changed youth perceptions of themselves and their ability to improve their lives. Most learners interviewed noted positive changes. Many learners noted changes in line with Powell's (2014) third capabilities dimension of 'confidence and personal empowerment' and Powell's sixth capabilities dimension of 'recognition and respect'. An illustrative quote from learners showed increased confidence and a sense of maturity:

It made me more responsible, made me open minded, and gave a much clearer vision and idea as to what I want to become and why. The college gave me hope of becoming something in life. (L1, 2016).

A further finding was that the TVET College experience had a significant impact on students' relationship with their own families and demonstrated a close bond with TVET College lecturer staff as shown in the quote below.

The teacher sends my parents a WhatsApp [instant messaging service – my insert] to tell them when I've done something good. And we get hugs at college (L2, 2016).

Students also noted improved relationships with their peers, which included mixing with TVET college peers from different cultures that had not been their experience at schools. They stated that school hierarchies made it difficult for Grade 9s to mix with Grade 12s, whereas at the TVET colleges they could speak to students freely regardless of academic level (Focus group discussions, 2016), students felt their communication skills had improved and they felt accepted at college.

A key impact of the programme was that learners were able to change negative perceptions of themselves as high school students with limited career and learning prospects to feeling more mature in an adult environment and in control of their own lives.

Experiences within the training programmes at TVET Colleges were generally reported as positive. Many students reported that they found Maths Literacy easier to understand than the Maths they had been exposed to at school, which was accredited to different teaching styles. Learner comments included: 'At school we had a fear of Maths' and 'The lecturers are prepared to explain something until we understand – even if we ask a hundred times!' (Learner questionnaire 10, 2016). This relates to Powell's 7th capabilities dimension, 'Upgrade skills and qualifications throughout the life course'. Most surveyed respondents indicated that they entered the programme in order to obtain a qualification rather than employment and largely felt that the course met their expectations in this regard.

Powell's 8th capabilities dimension of 'Occupational knowledge' was also referred to by youth at risk students. Over 50 % indicated that they would have preferred more practical exposure within the skills training programme and just over 30 % requested more access to a computer training centre. A student noted that: 'It's much more practical and it gives you confidence in yourself knowing you're just a few steps away from earning an income and becoming more independent' (L7, 2016). Students also noted that a travel allowance and food provided at the TVET Colleges made a significant difference in their completion of the training programme. However, some students who lived far from the TVET College noted that the transport allowance was insufficient and had to be topped up by family members (Learner focus groups 2016). Integration of youth at risk cohorts within TVET College student bodies was largely achieved, although students at a few college campuses felt isolated from their peers.

There was insufficient evidence in the student data, with regard to Powell's 4th capabilities dimension of 'Bodily Integrity' to measure this dimension as students had reported on violence in their communities, and while largely safe at the college, students were still exposed to violence within their home communities. Student interviews also illustrated ways in which they took on 'Active citizenship' (Powell's 2nd capabilities dimension), through reporting on communication with peers at the TVET College, their appreciation for being treated as adults within the TVET College and improved relationships with their family members. Powell's 5th capabilities dimension of 'Senses and imagination' was powerfully reported on as most youth at risk saw participation in sport as important, and the lack of sporting facilities at TVET Colleges was frequently commented on. A learner noted that she

‘would like to play netball, like I did at school but we would need transport afterwards’ (L9, 2016).

Youth career and learning trajectories post the intervention

Powell’s (2014) capabilities dimension 1 of ‘economic opportunities that matter’ was only partially achieved by the cohorts of youth at risk. After completing the training programmes, 29% of the surveyed graduates indicated that they were employed, compared to 69 % of the graduates who indicated that they were unemployed. 23 % of the graduates had undertaken further post-school studies and 7 % indicated that they were-self-employed. Nearly half of the employed graduates were working in the wholesale and retail sector in businesses that had provided workplace exposure and over 70 % of employed graduates felt that the skills they had received from the TVET College qualification were directly relevant to their job. However 48 % of all employed learners were employed on short term contracts of six months or less. Average earnings ranged from R 2000 – R 5000 per month for the majority of learners, but 30 % earned between R 1500 and R 2000, which is less than South Africa’s official minimum wage. In large part this was due to the fact that training programmes offered to youth at risk at Grade 9 level constituted an entry level programme at the TVET colleges. Cloete et al (2009) provide research that shows low levels of employability for qualifications below Matric (Grade 12) in comparison to post-secondary qualifications. Learners who did achieve employment through the YFP showed their appreciation and said that:

This programme has opened so many doors to the workplace and I am still working at [X retailer – my insert] since last year and I got a chance from X College to work in such a great working environment (L23, 2016).

I feel if I didn’t do this course I wouldn’t have gotten the job. I’m currently employed at [X retailer – my insert] working in the sales department. I feel wholesale and retail has helped me a lot because I use the knowledge I’ve gained in Wholesale and Retail [programme – my insert] and apply it at work. It made me more aware that the wholesale and retail is a very great department to go into (L15, 2016).

Data received from unemployed graduates indicated that over 68 % of these graduates were actively looking for a job six months or more after graduation. Overall 89 % of these graduates

were actively seeking job opportunities. On being asked for their reasons as to why they were unemployed, over 64 % indicated that they felt they needed a formal Matric (end of secondary schooling leaving certificate) in order to obtain a job. Over 80 % of unemployed graduates were financially supported by their families. Comments from unemployed learners showed their frustration at not obtaining employment:

I am unemployed and just at home with no income (L14, 2016).

I didn't pass. I was struggling to read, thus I didn't pass. I was offered help by the lecturers but it was too late. I am trying to get a job and I am compiling my CV and have forwarded my CV to prospective employers but I have not been successful so far.

I am sitting at home (L22, 2016).

Over 57% of the entire cohort of youth graduates indicated that they would like to study further in future. Of the 43 graduates currently studying, most indicated that their primary reason for doing so was to obtain a higher qualification than they currently held. Students generally furthered their studies in occupational areas that they had initially engaged in:

I have continued with level 2 and 3 [Wholesale & Retail]. Currently I am doing Level 3 workplace training ... in the Fruit and Veg section doing price checking (L3, 2016).

Conclusion

The findings of these entry level skills training programmes for youth at risk in TVET Colleges illustrate their experiences in entering the TVET College, their progression through the college and their career and learning pathways on exiting the programme. Powell's (2014) capabilities dimensions have been assessed against these experiences to assess whether they apply to a broader cohort of 'second chance' youth seeking to further their opportunities for learning and employment. There is strong evidence that most capabilities dimensions do apply to this cohort of students, even though this needs to be tempered with the sobering reality of low employment following the intervention. Capabilities dimensions that appear to have had the most significant impact are 'confidence and personal empowerment' and 'recognition and respect', which are reflected in students' affirming experience within TVET Colleges and a strong acknowledgement of the TVET College staff in reaffirming their own self-esteem as young adults.

Sen's (1999) capabilities approach stresses the potential freedom of all persons in achieving human development. This approach emphasises individual agency and the conditions necessary for people to achieve capabilities and functionings that can lead to their own human development. An emphasis on human agency differs fundamentally from a human capital approach to development, with its primary emphasis on rates of return to investment, rather than measuring the impact of lived experiences. The Youth Focus Project described in this article could have been analysed in different ways. From a human capital perspective, it could be argued that the youth at risk intervention demonstrated poor economic returns on investment and therefore had limited impact. The capabilities approach allowed the learners' own voices to emerge and they articulated outcomes of their exposure to the education and training intervention which went beyond an employment focus. The capabilities approach was able to illustrate ways in which these youth, facing failure at school and with limited career options, regained their self-esteem and confidence, and found new hope for their future career and learning pathways in spite of struggling to find employment immediately after the intervention. A key reason for the majority of learners entering this programme had been to obtain a qualification, which most achieved, and half of this cohort were determined to continue their studies subsequently, which was a significant finding.

Throughout the interviews with students and in the student survey, TVET College staff were acknowledged and their personal dedication to students was cited. In particular, staff were thanked for their different teaching styles which afforded students opportunities to feel valued as young adults and to take responsibility for their own learning. Students also credited TVET College staff with reaching out to their parents and family, which was not their experience when taught in large classes at schools.

Powell's (2014) capabilities dimension list proved largely applicable to this vulnerable cohort of youth at risk, particularly in describing potential capabilities arising from exposure to a vocational training environment. While access to 'economic opportunities that matter' (Capabilities Dimension 1 - Powell 2014) was only partially realized, the key impact of this programme was that many students utilised this second chance opportunity to fundamentally reshape their own perceptions of themselves and set in place processes to improve their future career and learning pathways. Over 97% of the surveyed cohort of youth at risk students indicated that they would recommend this training intervention to friends (Learner

Survey 2017). Although the key policy aim of TVET Colleges is to create employability options for students, this capabilities account has showed the potential of TVET Colleges to become a critical second chance institution and to create inclusive teaching and learning opportunities for vulnerable cohorts.

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Chapter 6

Title: Professional qualifications for the insurance industry: Dilemmas for articulation and progression.

Needham, S & Papier, J. 2018. *Journal of Vocational and Continuing Education and Training (JOVACET)*, 1(1):53-70. (DOI: 10.14426/jovacet.v1i1.303).

ABSTRACT

In South Africa, the lack of articulation between vocational college programmes and those of universities has long been a source of frustration for college learners seeking vertical progression pathways. The introduction of a National Qualifications Framework in 1995 appeared to offer hope of bridging the divide between occupational, practically focused qualifications and traditional academic qualifications, but, some 20 years later, the stumbling blocks are still evident in spite of concerted national policy efforts. This article reflects on a project conducted over a five-year period that intended to ‘create a progression pathway for TVET candidates into university’ in the insurance industry and the lessons learned in that process. What at first glance might have appeared to be simply a hostile environment for articulation and institutional intransigence, on further reflection revealed deep-seated curriculum issues associated with qualifications that were understood to differ fundamentally in function and therefore in form. The article draws, *inter alia*, on Bernstein’s (1999) theorisation of practical and disciplinary learning to show how a curriculum has an impact on pedagogies, assessment and quality assurance structures. After examining why college candidates who had succeeded in the first-level occupational qualification with its large workplace component struggled to complete subsequent university levels, the article concludes that divergent curricula and pedagogies will need serious attention if aspirations for more seamless articulation and easier progression are to become reality.

KEYWORDS

curriculum; workplace qualifications; disciplinary learning; articulation; employers; TVET colleges

Introduction

The introduction of legislation for an overarching National Qualifications Framework (NQF) in 1995 was one of the first education policies implemented in the aftermath of South Africa's transition to democracy. In seeking to overcome its former racially fragmented education policies, South Africa attempted, through the NQF, to align all education and training provision within a single framework that emphasised redress and equity intentions. Formal general school qualifications and university qualifications have been clearly defined and tend to be specific to particular institutions. However, vocational qualifications span at least three institutional types: schools, universities and technical and vocational education and training (TVET) colleges. As a result, they do not sit comfortably within the South African NQF, particularly from a quality assurance perspective. Subsequent NQF iterations (RSA, 2009) therefore resulted in three quality assured 'sub-frameworks': for general academic and general vocational qualifications, for occupational qualifications, and for university qualifications. Qualifications offered by public TVET colleges – which could be both general vocational or broadly within an occupational field, and occupationally specific or tailored to specific industry jobs – are situated at the nexus of these sub-qualification frameworks and overlap with both school and university qualifications. To illustrate: within the insurance industry, qualifications that prepare students for work in the sector are located at the higher end of the TVET college range of offerings and consist of both theoretical and practical learning. The qualifications are primarily occupational in that formal certification for the entry-level qualification, offered at a public college or by a private provider, enables candidates to undergo examination towards a professional designation. Such examinations are usually taken by employees already in the insurance industry. In this respect, these qualifications could be described as 'demand-led'. For higher-level designations, candidates would have to obtain higher-level qualifications such as those typically offered at a university. The problem that propelled our research project was that successful candidates who had completed a qualification at a TVET college, even though their exit level overlapped with that of a university first-year commerce programme, were not able to proceed seamlessly into the university and continue with a higher-level qualification there. The reason for this was essentially that the university system was not ready to recognise a TVET college qualification for entry to its programme.

In view of the barriers to progression that TVET college students faced, an ‘articulation’ project was embarked upon that intended to create the environment for college students undertaking an occupationally recognised qualification in the insurance industry to continue with a higher level qualification at university. It is in this context that the implementation of the project is reflected upon in this article, in particular the difficulties arising from the qualification in its pedagogy and practices.

For the purposes of convenient differentiation, the TVET college insurance qualification is referred to in this article as an ‘occupational qualification’, since it is a qualification recognised for work in the industry. The associated programme at the university, being aimed at a typical university qualification, is referred to as an ‘institutionally based qualification’. The discussion which follows is intended to highlight the issues that surfaced in bringing these two qualification worlds together so that a pathway into the industry could be created for students. We consider some of the dominant theoretical frameworks in respect of learning a discipline at a tertiary institution and practical workplace learning, as well as the modes of learning and teaching that characterise the two qualification types at their sites of delivery. The article concludes with an analysis of why learners who embarked upon this occupational qualification route at the TVET college had limited success in completing it at the university.

Locating the articulation project – workplace and institutional sites of learning

Significant policy work has been done in recent years on articulation within South Africa’s post school education and training sector. A definition of articulation used in the National Committee for Articulation Policy (RSA, 2014) is taken from a World Bank study of higher education differentiation and articulation in 12 African countries in 2007:

Articulation refers to the mechanisms that enable student mobility within and among the institutions that comprise the tertiary system, for example academic credit accumulation and transfer, recognition and equivalence of degrees, recognition of prior learning, and so forth (N’gethe, 2008:xvii).

The National Committee for Articulation Policy document notes the need to broaden this definition to South Africa's post-school education and training system and quotes the Minister of Higher Education and Training:

A well-articulated system is one in which there are linkages between its different parts: there should be no silos, no dead ends. If a student completes a course at one institution and has gained certain knowledge, this must be recognised by other institutions if the knowledge gained is sufficient to allow epistemological access to programmes that they want to enter (RSA, 2017:18).

The South African Qualifications Authority (SAQA) notes that articulation can be both 'systemic and specific' in that:

[S]ystemic articulation is based on legislation, national policy and formal requirements within the education and training system. Specific articulation ... is based on formal and informal agreements within the educational and training system, mostly between two or more education and training sub-systems, between specific institutional types, and guided by guidelines, policies and accreditation principles. Specific articulation also refers to institutional accommodation of individual needs (RSA, 2014:23).

Both policy documents, however, acknowledge that qualifications within South Africa's post school education and training system do not articulate easily. The National Committee on Articulation Policy observes that:

[T]he South African Post-School Education and Training (PSET) system is riddled with conceptual and systematic challenges and incongruities. Users of the PSET system experience a lack of coherence and articulation between and within the sub frameworks that constitute the NQF. Moreover, the system is perceived to be incessantly producing and reproducing gender, class, racial and other inequalities in access to PSET opportunities and to success in PSET programmes (RSA, 2014:7).

The policy document refers to debates on vocational education and training and notes with concern that vocational education is increasingly defined as the 'exclusive acquisition of a relatively narrow band of employment-related or job-specific skills and competencies' (Anderson, Brown & Rushbrook, 2004:11). SAQA also introduced a Credit and Accumulation Policy in 2014, which calls for the recognition of credits across learning institutions to increase the portability of qualifications registered on the NQF. Despite the publication of these articulation policies by the state, the articulation of qualifications between TVET colleges and South African universities remains minimal. It should be noted that the finalisation of these policies took place only after the research project intervention described in this paper had been concluded. Most TVET colleges have historically been engaged in offering traditional state-funded vocational programmes, some of which have a practical component, and fewer programmes with actual workplace training, given the decline in the apprenticeship system in the 1980s (Kraak, 2008). There was therefore considerable enthusiasm on the part of the insurance sector's quality assurance body when the project was mooted in TVET college programmes that have a link to employment. This explains this body's interest in colleges offering an NQF- registered occupational programme directed specifically at workplace designations in the insurance industry. Furthermore, the first targeted students of the programme to be offered by the TVET colleges would be candidates already in employment, which would ensure a direct relationship between theory learned at college and practice in the workplace. In order to achieve the professional designation recognised by the insurance industry, candidates had to attain the accredited qualification and then write a board examination set by the relevant professional body. From the outset, therefore, the project had the full support of the industry's quality assurance body.

Negotiations with a receptive research university resulted in an agreement to pilot a project in which five public TVET colleges would be prepared to implement a college-level qualification that would afford candidates access to the next level in the commerce faculty at the university. The commerce faculty, in turn, gave its in-principle agreement that students who completed the entry-level qualification at the five TVET colleges would be permitted to enter their two-year diploma programme and then proceed to a postgraduate diploma that would enable them to sit the examination for the highest professional designation in their

field. The professional body for the insurance industry also supported the pilot and agreed both to make their existing curricula available to the five TVET colleges and to update these curricula regularly as necessary. The professional body’s curricula gave insight into the professional board examinations and comprised substantially more material than that required by the quality assurance body for the insurance industry qualifications. The examinations leading to designations recognised by the insurance industry are depicted in the table below, which also shows their links to formal institutional academic qualifications.

TABLE 1: Professional designations aligned with formal academic qualifications

Qualification	Board examination leading to designation	Workplace requirement	Regulatory requirement
Certificate at first-year university level	Registered financial planner	One year of work experience	Minimum requirement to practice as an insurance broker
Advanced diploma at second- and third-year undergraduate university levels	Associate financial planner	Two years of work experience	
Postgraduate diploma at fourth-year university level	Certified financial planner (internationally recognised designation)	Three years of work experience	

The state-funded sectoral body for the insurance industry subsequently approved funding for 100 candidates to be enrolled at five public TVET colleges for this ‘articulation route’ into university. Candidates were required to have a school-leaving certificate in order to satisfy minimum university entry requirements and had to have worked in the insurance industry for at least one year to qualify for the funding.

The qualification offered by the TVET colleges, which was effectively a first-year university

level programme, differed from traditional first-year university programmes in that it was accredited by a sectoral body for the insurance industry and was designed in the manner of occupational programmes as an outcomes-based qualification aimed at achieving competence in the workplace. A mandatory 70% of the learning and assessment had to take place within the workplace, with 30% of the learning time spent attending classes at the college. The qualification was broken down into fundamental, core and elective components, each of which had a number of unitised standards with credits allocated to them. Learners were required to demonstrate competence in all areas of the qualification; if they were assessed as 'not yet competent', they could undergo repeat assessments until competence was achieved. Learners also had to complete a logbook of their workplace activities that would demonstrate their practical competence in the insurance industry. Traditional university qualifications, on the other hand, are quality-assured by a national statutory body for universities, and qualifications are specified in terms of very broad exit-level outcomes rather than being segmented into smaller competencies.

The diploma and postgraduate diploma qualifications in the commerce faculty were entirely theory-based, offered in university lecture halls, and assessed by means of academic assignments and formal written examinations. Against this backdrop, of the 100 students enrolled in TVET colleges for the first-level programme, 77 students passed and attained the certificate. Of these, 23 students proceeded to the university faculty of commerce for the two-year, part-time, two-diploma qualification and 18 students managed to pass their first university year and continue into the second year of the diploma. However, only 12 students completed the second year and were awarded the diploma qualification, of whom six diplomates entered the postgraduate certificate and were successful. This achievement made them eligible to take the professional board examination for their highest designation, that of certified financial planners.

In view of the high attrition rate of this cohort at university, this article seeks to explain why so few students succeeded in their university studies in spite of the high pass rate of the group that started out at the TVET colleges in the first-level occupational qualification. Part of the explanation appeared to be divergences in the ways that occupational and institutional or disciplinary qualifications were understood by those offering them in the different sectors,

and also in their pedagogies and practices. These differences can be traced to paradigms that characterise the different purposes of learning and of the institutions where they are offered, and we therefore attempt to locate these in the brief overview of the literature that follows.

Paradigms and practices at work

In this brief review we focus on the apparently divergent views on the nature and underpinnings of occupational or workplace qualifications, and those of university disciplinary qualifications. To begin with, the purpose of vocational education has been widely debated according to a range of perceived outcomes, namely: vocational education as skills development for quality citizenship (Garrat, 1999; Winch, 2000); to address (youth) unemployment (Leney & Green, 2005); and to boost economic growth, competitiveness, and social inclusion. However, a number of research outputs have been pessimistic about these outcomes on the grounds that the global economy increasingly supports a low skills equilibrium for the secondary labour market in a segmented labour market (De Freitas, 1995). These studies point to the disjuncture between policy rhetoric and reality, and between broader educational purposes and the political economy.

Various critiques have emerged that question the empirical and conceptual validity of human capital theory (Brown, 1999; Fevre, Rees & Gorard, 1999; Winch, 2000; Rikowski, 2001; Lloyd & Payne, 2002; Flores-Crespo, 2007; Valley & Motala, 2014); the skills mismatch thesis (Handel, 2003; Powell & Snellman, 2004); and skills shortages and the knowledge economy (Brown, 2001; Guile, 2002; Low, 2002; Brown, Hesketh & Williams, 2003; Miller & Hayward, 2006; Warhurst & Thomson, 2006; Wheelahan, 2007).

Other research results have pointed to the growing culture of credentialing and diploma inflation of existing work (Brown et al., 2003; Warhurst & Thompson, 2006); the politics of employability (Brown et al., 2003); the increased privatisation of education; the intensification of work, and, ultimately, the increasingly direct dominance of business over educational processes (Avis, 2004; Cornford, 2006) as the underlying defining features of vocational education. Clearly, the education–work relationship is contested and neither neutral nor value-free. Stone (2002), on the one hand, suggests that vocational education

should be *for* work, *through* work and *about* work, while, on the other hand, the realm of vocational education is expanded to include general education (using work as a context) and education for democratic participation or citizenship education.

There is a growing body of literature, inter alia, Engestrom (1987), Raizen (1994), Guile and Griffiths (2001), Schuetze and Sweet (2003) and Hodkinson (2005), which advocates close intra-relationships and interrelationships between institutional and workplace learning. Nevertheless, the dichotomy between the types of learning that take place in discipline focused qualifications, and in learning focused on occupations, is acknowledged. In the latter instance, the workplace is seen as the primary learning site (see Lave & Wenger, 1991; Billett, 2001; Boud & Middleton, 2003), whereas, in the former, the academy is the site of learning (e.g. Bathmaker, 2005; Young, 2005; Allais, 2007), leading to divergent views on the kind of learning that occurs in these different locales.

The workplace as a site of learning

Billett (2001) disagrees with the naming of workplaces as 'informal learning sites', arguing that such a view is 'negative, inaccurate and ill-focused' and part of a discourse on learning that uncritically privileges formal academic education. For Billett, learning needs to be understood as a participatory practice, an engagement with the social world and an 'interpsychological process' (between individuals and social practices of knowledge). He cites cognitive and sociocultural constructivist psychological perspectives (Anderson, 1993; Rogoff et al., 1995) that link engagement in goal-directed activities to learning in support of this view.

Furthermore, Lave and Wenger (1991) hold that work practices are often intentionally organised to facilitate learning. Hodkinson (2005) agrees with critiques of learning as either 'formal' or 'informal' when referring to learning in academic and workplace settings, respectively. He argues that, in both institutions and workplaces, attributes of formality and informality exist in learning. Hodkinson uses Lave and Wenger's (1991) theories of cognitive situated learning as well as Bourdieu and Wacquant's (1992:527) concept of 'habitus' to argue that all learning is an 'ongoing relational and reconstructive process'.

The industry qualification model that candidates in our research project undertook, in which 70% of the learning had to be conducted in the workplace, aligns with scholarship on the workplace as a site of learning. This research posits the learner as being more than the input of learning and learning as a social practice, whether in an institution or at work, and the importance of understanding these different contexts as a basis of learning progression. Guile and Griffiths (2001) argue for the: '[C]onnective model' of work experience as a basis for a more productive and useful relationship between formal and informal learning, since it addresses how work experience can enable students to take explicit account of '*the learning which occurs within and between the different contexts of education and work*' [original emphasis] (Guile & Griffiths, 2001:128).

Their argument therefore posits learning as contextually bound and calls for strategies to make learning about these different contexts of work and education explicit. Discourses evident in the debates on vocational learning are concerned with how and where knowledge and learning are best transmitted and acquired. Proponents of institution-based disciplinary knowledge query the extent to which workplaces can be sites of vertical knowledge and draw on Bernstein's (1999) distinction between horizontal and vertical forms of knowledge to argue that the knowledge of disciplines acquired in educational institutions offers the most viable route for acquiring specialised knowledge. Bernstein's (1999) theorising on these issues is evident in many of the scholarly debates about institution-based disciplinary learning; therefore, we take a closer look at the underpinnings of those discourses here. Bernstein (1999) defines a vertical discourse as:

A coherent, explicit, and systematically principled structure, hierarchically organised, as in the sciences, or it takes the form of a series of specialised languages with specialised modes of interrogation and specialised criteria for the production and circulation of texts, as in social sciences and the humanities (Bernstein, 1999:159).

He asserts further that learning is achieved through the re-contextualisation of 'symbolic structures of explicit knowledge' in vertical discourse (as opposed to 'segmentation') or in

horizontal discourse contexts (Bernstein, 1999:161). Vertical knowledge is therefore characterised by general propositions and theories 'which integrate knowledge at lower levels, and in this way shows underlying uniformities across an expanding range of apparently different phenomena' (Bernstein, 1999:162). A further characterisation of vertical knowledge is one of 'greater and greater integrating propositions, operating at more and more abstract levels', by which vertical knowledge structures are produced by an 'integrating code' (Bernstein, 1999:162). He notes that vertical knowledge structures are hierarchical and that for these structures 'it is the theory that counts and it counts both for its imaginative conceptual projection and the empirical power of the projection' (Bernstein, 1999:165).

In comparison with vertical discourse, a horizontal or 'common sense' discourse is characterised as:

Oral, local, context dependent and specific, tacit, multi-layered, and contradictory across but not within contexts ... the crucial feature is that it is segmentally organised (Bernstein, 1999:159).

Whereas Bernstein's work on horizontal discourse is mostly contextualised within higher education, he does refer to 'craft' as a close approximation of a horizontal discourse (Bernstein, 1999:168). In this regard, he notes that each horizontal knowledge structure makes its own assumptions about what counts as a legitimate text, but the transmission of knowledge in 'everyday' life is essentially oral in character (Bernstein, 1999:168). A key feature of workplace learning is the often tacit, embedded ways in which learning is transmitted within the workplace context (Bernstein, 1999:168). According to this perspective, knowledge, competencies and literacies are:

Contextually specific and 'context dependent', embedded in on-going practices, usually with strong affective loading, and directed towards specific, immediate goals, highly relevant to the acquirer in the context of his/her life (Bernstein, 1999:161).

Hence, knowledge within a horizontal discourse is often serially acquired and the language

used to define each segment or context is not easily translatable across contexts (Bernstein, 1999:163). Pedagogy and teaching practices will therefore vary between different contexts, since the two knowledge types are acquired differently and will need to be assessed differently, depending on the type of competence required. This perspective, though, needs to be tempered by the views of other theorists such as Guile (2010). They caution that theoretical knowledge and tacit knowledge should not be seen as separate knowledge types but rather as interdependent, the relationship between the two being mediated to successfully address professional learning.

Young (2005) argues further that outcomes-based frameworks undervalue the extent to which institution-based learning guarantees the quality of a qualification. His concern is with unitised qualifications where the learner selects different unit standards to make up a qualification, and where the sequencing of these units may undermine the process needed to acquire knowledge and skills. His argument here is that: [M]any kinds of knowledge in general education (such as physics), and many skills (such as cabinet-making) that are important in vocational qualifications, depend on a particular sequencing of learning defined by subject specialists, and are not amenable to unitization (Young, 2005:25).

Young maintains that, for developing countries, emphasis should be placed on an institution building process rather than on outcomes-based qualification frameworks. Allais (2007) agrees that a unitised, standards-based approach tends to atomise learning, making conceptual learning difficult, more particularly assessment of such qualifications which have led to managerialist practices by some quality assurance bodies. Gamble (2006) cautions that theory and practice in vocational education represent fundamentally different forms of knowledge, and that privileging practical knowledge could lead to 'downward rather than upward vocationalisation and block possible progression to higher education' (Gamble, 2006:12). In contradistinction, many further education colleges in the United Kingdom have received accreditation in order to offer undergraduate degree programmes, resulting in the dilution of the more practical occupational focus. This outcome has led Bathmaker (2005) to observe that:

... over the past decade there has been considerable academic drift, so that these (vocational) qualifications now have more in common with their academic counterparts than with occupational qualifications (Bathmaker, 2005:85).

Crudely stated, some scholars tend to view disciplinary learning as being primarily about promoting codified learning that enables progression to vertical academic knowledge and further learning rather than to proficiency within the workplace. Such divergences of perspective about the purposes and value of traditional theoretical programmes offered mostly in academic institutions, on the one hand, and occupationally directed learning programmes undertaken largely in workplace settings (such as the NQF-registered insurance industry programme), on the other, proved to be key stumbling blocks in the research project described in this article. Those same divergences of perspective led to critical differences in pedagogy and practices that ultimately affected learner performance.

The impact of competing discourses on implementation

In spite of TVET colleges' primary focus being vocational training, traditional programmes have led to largely theory-based qualifications that had little practical or workplace experience as a component of the qualification. The qualification to be offered in the pilot project at TVET colleges was therefore a new 'demand-led' programme that had not previously been offered in these institutions. This entry-level qualification offering access to the insurance industry designations was an NQF-registered, unit standards-based occupational programme. A large proportion (70%) of the learning on this programme was intended to take place in the insurance workplace and only 30% of the learning by means of the usual didactic delivery. The evidence presented below stems from a detailed research study conducted by a university research institute on the articulation of professional qualifications for the insurance industry.

The mode of delivery was prescribed by the sectoral body responsible for the quality assurance of this qualification; it was defined as a 'learnership' similar to the apprenticeship model which entailed a tripartite agreement between the learners, a training provider and

an employer. A learnership is defined by the South African Qualifications Authority (SAQA) as:

A work-based learning programme that leads to an NQF-registered qualification. Learnerships are directly related to an occupation or field of work, for example electrical engineering, hairdressing or project management. Learnerships are managed by sector education and training authorities (SETAs) (SAQA, 2014).

Whereas in-house industry training providers are often able to offer both workplace training and the theoretical learning, this was not the case with public TVET colleges. South Africa's Labour Relations Act 66 of 1995 and the Compensation for Occupational Injuries and Diseases Act 130 of 1993 have specific provisions that prevent non-employees from working or training in the workplace, as non-employees are not covered by insurance should any accident occur in the workplace. This meant that the TVET colleges participating in the project provided the theoretical training only, while the insurance companies used their own staff trainers to provide the workplace learning component. One hundred employed insurance candidates undertook the NQF Level 5 qualification in financial planning at public TVET colleges. The qualification consisted of 80 discrete unit standards, ranging from 2 to 15 credits and totaling a minimum of 120 credits to be achieved. To illustrate the way the standards are written, one of the unit standards intends the learner to 'Adapt and verbally communicate financial information to a range of audiences' (SAQA ID No. 242614) and is assigned a total of 2 credits or 20 notional hours of learning. This unit standard has 14 assessment criteria according to which a learner's competence can be assessed.

The qualification is divided into fundamental, core and elective components. Fundamental knowledge for this qualification focuses on economic knowledge and the financial sector, and is closely related to the occupation of a financial planner. In this programme, this learning identifies closely with Bernstein's (1999) notion of a 'horizontal discourse', where the primary aim of the qualification was to ensure that learners followed a tightly prescribed curriculum that focused on their ability to act as insurance brokers. No provision was made in this qualification for acquiring the fundamental disciplinary knowledge that would

enable learners to engage in further academic study. The fundamental unit standards for the financial planning qualification are as set out below.

TABLE 2: Fundamental unit standards for the financial planning qualification

Fundamental	Apply basic economic principles to the financial services sector	Level 5	Level TBA: Pre-2009 was L5	5
Fundamental	Demonstrate insight into current affairs in the financial services sector	Level 5	Level TBA: Pre-2009 was L5	10
Fundamental	Demonstrate knowledge [of] and insight into the changing nature of the financial services industry and its consumers	Level 5	Level TBA: Pre-2009 was L5	6
Fundamental	Demonstrate knowledge and understanding of risk in a financial services environment	Level 5	Level TBA: Pre-2009 was L5	5
Fundamental	Describe the financial life cycle of an individual and how this influences financial decisions	Level 5	Level TBA: Pre-2009 was L5	8
Fundamental	Present an informed argument on a current issue in a business sector	Level 5	Level TBA: Pre-2009 was L5	5

While all the stakeholders provided support and there was certainly the political will for the articulation project to succeed, the lack of foundational knowledge at the first-year level of the NQF-registered qualification proved highly detrimental to learners' progression at the university once they had succeeded in attaining the first level.

The university had commissioned a study that could provide a mapping of the first-level TVET

college qualification onto the university-level qualification. Using a contextual and conceptual mapping tool that drew on research from Muller (2008) and Gamble (2009), based on Bernstein's (1999) theoretical approach, it was found that only 12 credits offered in the first year-level programme offered at TVET colleges could be awarded towards the university Bachelor of Commerce degree. The tool developed by two universities devised knowledge typologies that distinguish between 'conceptual' and 'procedural' (or contextual) knowledge, and, for each of these types, further distinctions between principled and procedural were made, consequently creating a four-part knowledge typology, as follows:

- conceptual knowledge;
- procedural conceptual knowledge;
- principled procedural knowledge, and
- procedural knowledge.

Both conceptual and procedural (or contextual) knowledge can therefore be principled, but with an important difference: in principled procedural knowledge the principles emerge from the procedures themselves; in other words, they emerge from the codification of practice. In procedural conceptual knowledge, 'the principles emerge from the conceptual domain or from the theory' (Palframan, Nel & Baduza, 2012).

The reason cited for there being so few recognised credits was that the university provided foundational knowledge in the first year of the degree to prepare learners for the complex mathematics and economics concepts that students would need in the second- and third-year levels of the undergraduate degree, which was not the case in the college-delivered programme. The university was therefore unable to accredit any of the fundamental knowledge provided in the NQF-registered qualification because it did not match the disciplinary knowledge in the courses provided by the university.

Another factor to consider is that graduates of the NQF-registered qualification struggled with the academic level of the economics and mathematics taught in the university diploma. This largely accounted for the high dropout rate experienced by students once they reached university. The faculty view was that an intervention was needed that would build the candidates' foundational knowledge of mathematics, communication and economics, as this clearly needed strengthening. The envisaged bridging programme to prepare learners for

university study after their graduation from the college programme did not materialise, as it had not been built into the funding.

In addition, the workplace learning component of the college-level qualification proved to be highly problematic. Despite assurances from the sectoral body responsible for insurance qualifications that it would provide a logbook to monitor workplace activities, this was delayed by nearly a year from the start of the project. Learners were not allowed to include their previous workplace experience (as they were employed candidates) for credit-bearing purposes in the logbook and could record only their current on-the-job learning; neither were employers reimbursed for providing workplace mentors to quality-assure the learners' logbooks. Furthermore, many of the employed learners who were working in insurance call centres struggled to get released by their line managers for the purposes of training in other divisions of the insurance company. Many workplace mentors viewed the logbook as a 'checkbox' exercise where workplace learning tasks were signed off with minimal evidence having been presented that these tasks had been completed. Through the mediation of the sectoral body, a compromise was eventually reached that candidates could focus on specific workplace tasks that enabled them to complete their workplace portfolio of evidence.

A further finding was the difficulty encountered by the university and the TVET colleges in providing adequate learning materials that encompassed all of the content prescribed in the qualification. Public TVET colleges had minimal experience in developing curricula because the mainstream programmes used prescribed learning material funded by the national education department. While the professional body had made their curricula available to the project, the insurance sectoral body felt that the learning materials were deficient, an issue that remained a source of tension throughout the project. The sectoral body held, further, that the learning material for the college programme should be mapped against the 80 unit standards and 144 assessment criteria of the qualification.

Furthermore, a prescribed textbook used by all universities offering financial planning qualifications at undergraduate levels was deemed 'insufficient' by the sectoral body in the light of the atomised learning content of the occupational programme. And, although

additional funds were able to be sourced and allocated to the university to develop customised learning materials that addressed the unit standards and assessment activities, the university academics had little understanding of such outcomes-based materials and instead outsourced the materials development to industry experts. This, in turn, led to copyright issues, as some of the industry experts appeared to resort to materials that had previously been developed for other private training providers. To resolve the impasse and the learning delays this had led to, the professional body commissioned a private provider to develop the requisite learning materials for the university programme.

Another major tension that surfaced in the project and most certainly disadvantaged the candidates, was that of the difference in approach to assessment and quality assurance adopted by the TVET college under the sectoral body regulations and that of the university as an institution with a lot more autonomy in curriculum matters. Learners following the first-level, outcomes-based and unitised qualification at TVET colleges were allowed to repeat their formative and summative assessments up to three times in order to reach the required level of competence in the specified outcomes and assessment criteria. While grades were provided for these assessments, the aim of the assessment structure was to measure competence rather than academic excellence. When these learners progressed into the university diploma, however, they encountered a very different assessment regime which did not permit learners to repeat assignments as part of their continuous assessment or formal examinations. Assignments at university also required them to source texts independently from libraries or the Internet as opposed to being provided with a set of learning materials that contained all the content required for the qualification.

The university curriculum was organised into 8 × 20 credit modules, delivered part-time to the employed students after hours. The exit-level outcomes for the content of the university diploma were far less specific, and the faculty had considerable autonomy about the content and methodology needed for students to meet the broader outcomes. Examples of such exit level outcomes are these:

- Able to identify and solve management problems using some judgement across a range of functional areas.

- Able to collect, analyse and organise theoretical and practical information across a range of functional areas of management, and critically evaluate information if an area of specialisation is selected.
- Demonstrate an understanding of the organisation as a set of related functions by applying holistic approaches to strategic business problems.

As can be seen from these outcomes, the students would be required to engage both practically and theoretically with the subject matter, the emphasis being on acquiring broader self-directed learning skills. In the following section we return to the theoretical framing employed in this article to illustrate critical differences in the learning discourses that had a seminal impact on the success of the articulation project.

What were the learning approaches of the project?

The attempted articulation route into professional qualifications in the insurance industry revealed fundamental differences in learning approaches between standardised outcomes-based qualifications in the workplace and disciplinarily 'whole' qualifications offered at universities. Both types of qualification offered in the project contained elements of Bernstein's (1999) horizontal discourse, in that they included practical and tacit knowledge related to the occupational tasks of insurance brokers. But the occupational qualification underwritten by the sectoral industry body was tightly prescribed and sequenced in terms of specific segmental knowledge and competencies required by the workplace. On the other hand, the university qualification focused primarily on the theoretical and disciplinary knowledge needed to satisfy the academic requirements of academic undergraduate and postgraduate qualifications. This difference in understanding of the purpose of the qualification led to the foundational knowledge of the workplace qualification being seen by the university as inadequate to prepare learners for further academic study, whereas the TVET colleges understood the purpose to be preparing learners to be competent in the insurance industry. Assessment and quality assurance processes and procedures for the insurance occupational qualification appeared to be too tightly prescribed and unable to

incorporate the broader disciplinary knowledge outcomes that would enable learners to progress in higher education studies.

Conclusion

The project starkly revealed the difficulties of combining, in a single articulation route, a unitised qualifications approach as employed in the workplace-directed occupational programme with the traditional disciplinary-based qualifications approach of universities. While the occupational programme embarked upon at the TVET college focused on the immediate short-term skills needs of the insurance industry, it did not lay the foundation needed by candidates who might wish to progress to higher qualifications at university for the purposes of acquiring the higher professional designation. The project therefore indicated that future interventions aimed at articulating academic and occupational qualifications in South Africa will need to take account of the curriculum development, learner support and lecturer capacity-building required for integration of horizontal and vertical knowledge constructs, and how these manifest in institutional pedagogies and practices. We hope that the findings of this articulation research can be used by policy-makers to inform the recently developed qualifications frameworks for the training of TVET college lecturers so that sufficient capacity can be built to ensure effective articulation generally between TVET colleges and universities.

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Chapter 7

Topic: Student Support Structures for Transitioning from Vocational to University Education: A South African Case Study

Needham, S. In S. McGrath et al. (Eds.). Handbook of Vocational Education and Training: Developments in the Changing World of Work, Springer Nature. Switzerland AG 2018, https://doi.org/10.1007/978-3-319-49789-1_92-1

Abstract

The divide between vocational colleges and universities in South Africa, in spite of government attempts to institute articulation and progression policy, is still too great for many students to make the transition. A 5-year research and development project that brought colleges and a university together to collaborate around enabling TVET college students to progress from a professional financial planning program into a university qualification in finance, revealed rather dismal outcomes if judged by throughput rates alone. Analysis of the reasons for the poor performance of these college students at university revealed significant disparities between the kinds of support offered at TVET Colleges, and that offered at university. Notwithstanding contextual differences, scholarship on student transitions to university and learner retention resonate with the findings of the qualitative research conducted into the project and its outcomes. This article focuses on students' experiences of transitioning from a vocational college to a university and concludes that fundamental differences in approaches to student support in the two institutional types impacted negatively on student transitions and outcomes.

Keywords

Student support · Transitions · Learner retention · TVET colleges · University

Introduction

Successful student transitions from Technical Vocational Education and Training (TVET) colleges to universities in South Africa are minimal and poorly recorded. While official policy states that the primary goal of South Africa's public TVET college sector is to train towards employment, there is also an increasing policy focus on producing high-level skills and on an integrated post-school education and training system in South Africa (DHET 2013). A joined up system that enables effective student transitions is one of the aims of this policy focus. An innovative research and development project which is the subject of this article brought public TVET colleges and a university into a partnership to create a pathway for adult college learners in a professional program, into a university qualification. As part of evaluating the project and its outcomes, students' experiences of their transition to university were probed, particularly to understand why the throughput rate of these students at university was so low. Scholarship on student transitions and student support was used to place this study into a larger international context, and findings from both the literature review and the qualitative enquiry revealed that student transitions into higher learning or work are fraught. Student data showed inter alia that support services in colleges and in university are currently not aligned or consistent, and illuminated differences in approaches to student support, a misalignment that was found to be a contributory factor in the poor success rates of students in the project. An overview of the South African education and training system follows in order to situate the research and development project that is described later herein.

South Africa's Post-School Environment

One of the first education and training policies in South Africa introduced after the end of apartheid was an outcomes based National Qualifications Framework (NQF) in 1995 for all education and training provision, under the oversight of the South African Qualifications Authority (SAQA). An overarching objective of the NQF legislation was to "facilitate access to, and mobility and progression within, education, training and career paths" for all South Africans and to "accelerate the redress of past unfair discrimination in education, training and

employment opportunities” (SAQA Act 57, March 1995). The introduction of the South African qualifications framework drew on the experiences of Australia, New Zealand, and Scotland (Allais 2007) and was initially composed of 8 levels which later increased to 10 levels in 2008. University qualifications were pegged at NQF Levels 5–10, which accommodated all undergraduate and postgraduate qualifications. In 1998, legislation for TVET Colleges was passed that situated their offerings at NQF Levels 2–4, corresponding with Grades 10–12 in the formal schooling system, although an allowance of 10% allocation of programs at first year university level was made. Prior to 1998, many colleges had offered the majority of their programs at Levels 5 or first year university level (Akoojee and McGrath 2007) even though these programs were not formally recognized by universities to be equivalent. From 2008, the South African NQF was revised into three sub-frameworks with a quality assurance body for each sub-framework governing compulsory school offerings, vocational/occupational programs, and university qualifications, respectively (NQF Act 67, 2008). Coherence and progression of professional qualification pathways remains a systemic challenge, with the National Committee on Articulation Policy (2013) noting that:

The South African Post-School Education and Training (PSET) system is riddled with conceptual and systematic challenges and incongruities. Users of the PSET system experience a lack of coherence and articulation between and within the sub-frameworks that constitute the NQF. (RSA Government Gazette 2014, No 37775, p. 7).

Despite the unifying aims of the South African NQF, learner transitions between TVET colleges and universities are significantly complicated by unaligned education and training legislation. At a regulatory level, post-secondary institutions in South Africa have different authorities that determine student and academic policies. Universities have had a long history as autonomous institutions similar to many Anglophone countries such as the UK and Australia (Polesel and Freeman 2015), and every public university in South Africa has its own juristic act (Higher Education Act 1997).

In addition to structural changes since democracy, universities have experienced changes in their student cohorts and have put in place comprehensive measures to assist students’ transition from school to university (CHE 2013). For instance, public universities have extensive support measures that include infrastructural accommodations for access, student

wellness schemes, and professional staff available for academic and other support. Universities have considerably better financial resources to support interventions due to the funding formula that allows universities discretion in their allocation of resources. TVET colleges on the other hand, enjoy less autonomy and are centrally regulated by the Department of Higher Education and Training (DHET). Although each of the 50 public colleges are juristic bodies, they are bound by centrally driven policies and funding norms of the national government, such as uniform student support policies and guidelines for implementation by all colleges.

A national Student Support Services Framework was first introduced to public TVET colleges in 2008 (Department of Education 2008). This framework document, *Student Support Structures for Transitioning from Vocational to University*, identified a number of barriers facing college implementation of student support services, such as fragmented student development services at colleges; minimal consultation between colleges and provincial departments; no state funding for student support services within TVET colleges; minimal staff allocations for student support services; a lack of understanding of the need for student support services; and a lack of financial and infrastructural resources to facilitate student support services (P. 3–4). A critical emphasis of the 2008 framework document was placed on academic support (DHET SSS, p. 6) in view of poor pass rates in TVET programs. The document acknowledged the lack of foundational knowledge (mathematics and literacy) and weak general subject knowledge of students and exhorted TVET colleges to focus on language, maths, and literacy as initial support interventions. The stark contextual differences between universities and TVET colleges with regard to decision-making, funding, and student support provided the backdrop for a funded intervention that aimed to offer students a progression route from their financial planning program at college, into a university qualification, an innovative project that, it was envisaged, would boost the sparse local knowledge on post-school student transitions.

College to University Transitions in the South

Research into student transitions from TVET colleges to universities has in the main consisted of large-scale studies commissioned by the World Bank and UNESCO. In the early

2000s, a UNESCO study of TVET in Sub-Saharan Africa noted that for most of the countries, TVET was offered at secondary schooling level and that for the majority of students entering vocational schools, access to higher education was not an option (UNESCO 2002).

Francophone countries generally had stronger articulation linkages between secondary and higher education TVET institutions. A 2008 World Bank study of higher education articulation and differentiation conducted in 12 African countries largely corroborated the UNESCO 2002 report findings. The World Bank Report (N'gethe et al 2008) found that most universities require school-leaving qualifications as a minimum for entrance. Exceptions were found in Francophone countries, where education followed the French model and non-academic vocational institutions enjoyed high esteem. Generally in Africa, very weak linkages exist between technical vocational education and training (TVET) institutions and polytechnics and universities, and student transitions between these sectors is minimal. The report notes the introduction of qualifications frameworks but shows very little evidence that qualifications frameworks have impacted on student transitions and progression.

A 2013 UNESCO study of 13 Southern African Development Community (SADC) countries, similarly states that student transitions from TVET institutions to universities “remains uncommon and fraught with difficulties” (Chakroun 2013, p. 15). The report notes that: TVET qualifications are not primarily designed with a view to progression to higher levels but with a view to the competencies required for a specific occupation or set of occupations. This typically means that TVET graduates have much less prior formal learning and are less prepared for higher education programmes than academic school graduates. Given the low esteem for TVET in many cases, it is not surprising that universities are concerned about offering places to TVET graduates, and there are particular, and rational, worries about levels of formal mathematics and scientific knowledge. (p. 42).

Further afield, UNESCO commissioned a study of student transitions from secondary school to universities in Asian and Pacific countries. A case study of Australian higher education systems revealed similar tensions between “the vocational curriculum” and its relationship to general or academic secondary programs. Indeed, Polesel and Freeman (2015) state that:

While the academic curriculum has been subject to remarkable stability and treated as canonical, often due to the power of universities and examination boards over its content and delivery vocational studies have been controversial, their establishment contested and their form subject to the interests of competing stakeholders. . . . Vocational programmes play a minimal role and sit uneasily within a senior secondary curriculum still largely used to teach, select and rank students for university. (pp. 10–11).

This brief review of African students' transitions from TVET colleges to universities in the South reveals the range of tensions and difficulties in enabling student progression from vocational studies to university, since universities still prioritize general and academic school knowledge over and above vocational programs. Furthermore, poor retention and throughput continue to be features of a lack of progression from TVET colleges to university, for which the following section provides some theoretical framing.

Theorizing Student Retention and Throughput

A dominant theoretical framework which has implications for student support is Tinto's work on student retention in higher education (2005, 2010). Tinto acknowledges that student retention and graduation can be attributed to students' own social, aspirational, and academic attributes, but that there are factors within the control of institutions which affect retention and throughput. His 2010 research identifies four broad "institutional conditions" that affect student retention, namely, student expectations, student support, student feedback, and student involvement (p. 56). However, he argues that the most important factor affecting student retention is academic support offered in the classroom. On the other hand, Astin (1999) foregrounds student development through "student involvement," which he defines as the "quantity and quality of the physical and psychological energy that students invest in the college experience." (p. 528).

Longitudinal surveys of student retention in the USA have shown conclusively that student

throughput rates differ significantly between high-income and low-income students and that the rate of low-income students not completing higher education qualifications is widening (Tinto 2010, p. 53). Similar studies of South African higher education data have shown that student retention and completion rates are significantly affected by low income backgrounds rather than racial identity, and that support offered to students from low-income backgrounds is insufficient (HSRC LMIP Seminar, November 2017). Despite the dominance of Tinto's theoretical approach, there has been significant critique of "institutional" approaches to student retention and development, for instance, Rovai (2003) notes that Tinto's Student Integration Model has limited applicability for students who are not studying full time within a university, and McCubbin (2003) shows that non-traditional students, such as those with disabilities, are far less socially integrated within universities. In South Africa, there has been minimal research on the TVET colleges sector and particularly on student experiences in vocational education. Jeffery (2015) traces student support approaches within South African higher education student development and notes post-apartheid transitions from targeted minority black student support to a more inclusive institutional approach for the majority of students. However, all of these approaches have tended towards a deficit model of support. In comparison with universities though, student support policy and implementation in vocational education are still in their infancy.

A Test Case of College to University Progression

In 2007, at the request of a professional body in the insurance industry, a traditional public university undertook to assist in developing a pathway for TVET college students in a financial planning program that enabled them to progress into an appropriate university finance qualification (Needham 2014). The qualification offered by vocational colleges was located at Level 5 (a first year university level), and the first year university level on South Africa's qualifications framework is described as follows:

This is an entry-level higher education qualification. The qualification is primarily vocational, or industry oriented. The qualification also serves to provide students with

the basic introductory knowledge, cognitive and conceptual tools and practical techniques for further higher education studies in their chosen field of study. The knowledge emphasises general principles and application. This qualification signifies that the student has attained a basic level of higher education knowledge and competence in a particular field or occupation and is capable of applying such knowledge and competence in an occupation or role in the workplace. (p. 19).

The university agreed to collaborate with five public TVET colleges to ensure that the financial planning program offered at the college would enable students to access the university at a later stage. Consultations were held with the relevant university faculty as well as with the quality assurance body responsible for the industry accredited program being offered by the colleges. The university agreed to amend its admission policy so that employed students who completed the part-time financial planning program at TVET colleges would be able to enter the second year of the university level Diploma. This was a significant concession for the sake of progression. On completion of the university qualification, students would furthermore be able to access a postgraduate certificate which would allow them to write an internationally recognized board exam set by the insurance industry, a process that would effectively take part-time students 5 years to achieve professional status. In order to lessen the financial burden on students undertaking this route, funding was obtained for the 5-year period.

In 2009, 100 part-time students, all employed adults in the insurance sector, were enrolled in five public TVET colleges for the Level 5 financial planning program. Students were required to have a school-leaving certificate in order to satisfy minimum university entry requirements and had to have worked in the insurance industry for at least a period of 1 year to qualify for the funding. Twelve of the enrolled students were people with disabilities that included visual impairment, deafness, and two quadriplegics. Of the 100 students admitted to TVET colleges in the Level 5 program, 77 students passed, of which 23 students enrolled for the part-time 2-year Diploma qualification offered at the university. Of these 23 students, 18 students managed to complete their first year and continued into the second year. However only 12 students completed the second year and were awarded the diploma, of which none were students with disabilities. Finally, at the end of an arduous journey, six diplomates entered

the postgraduate certificate and were successful, making them eligible to write the professional board exam for financial planners.

An evaluation of the project outcomes clearly pointed to the low throughput rate which was of huge concern. How was this poor transition performance to be explained? In an attempt to find answers additional to the comparative literature, students were asked to respond to questions about their experiences at college and university, and to expand on issues that they felt had impacted on their progress, the results of which are reported below.

Student Experiences of Transition and Progression

Most of the students interviewed reported that they had found learning at TVET colleges physically difficult as the training facilities were much poorer than the corporate offices in which they worked. Students with disabilities struggled with physical access, and as a result of this, two of the five TVET colleges relocated to training rooms within large insurance companies which had better access facilities. Students did acknowledge though, the strong support from the college for their learning needs, as one college had dedicated an occupational therapist within their Student Support Services division to work with the students with disabilities. However, a few students noted that student support had waned at colleges towards the end of their program. Another student noted specific difficulties experienced by students with disabilities at the university:

. . .unfortunately, we do not have the necessary assistant devices to complete the course .
. . .speech calculator, notes, tutorial memo's . . .and it just lacked any accommodation for the visually impaired to make a success of it.

Concerns were also raised with the quality of the learning materials. Because university lecturers were unfamiliar with the format and requirements of vocational college-based qualifications, the learning materials were drawn from varying sources and updated during the delivery of the qualification, which was not ideal. No funding was allocated for additional curriculum development. While students felt the college and facilitators provided insights into their industry, a few students raised difficulties in their teaching and learning experiences, especially with regard to assessment, as, in the words of a student, "the college assessment

is not close to that of the university, therefore it (college assessment) does not prepare you for the work load.” Students struggled with being exposed to widely differing assessment approaches between the college and the university. Within the Level 5 program provided by colleges, students were able to repeat formative and summative assessments up to three times in order to prove their competency of the outcomes based qualification. At university however, students were provided with only one opportunity to pass assignments. A further difference in assessment was that the program at TVET colleges involved recording workplace learning experiences in a log book. College staff were not involved in the workplace assessment and insurance companies appointed workplace mentors to supervise students. The workplace mentors, however, were not remunerated for their additional work, and in many cases, students did not get sufficient exposure to workplace learning areas necessary to complete their log books. At the university, students simply received no workplace exposure as the qualification they transitioned into was entirely theoretical.

A critical challenge identified at the outset of the project was that students would need subject knowledge assistance in mathematics, economics, and literacy skills to ensure their successful transition to university. In this regard therefore, students felt that colleges did not adequately prepare them for university. One student noted the diversity of performances at university in their combined classes, and the high expectations of academic performance:

It is very intense. . .it is assumed by the lecturer that we all on par and will be able to work at the same pace. No extra classes are provided for those students struggling as well. In my experience I had to attend 5 extra classes, at a cost of R 100 per class.

Despite overwhelming support for the development of an innovative transition route, a few students expressed a note of caution, as in the following:

Yes, I have recommended this route to others as it is very informative and provides broader understanding of the insurance industry. But I would caution them when it comes to the university program as the levels between the two programs is very different. It would be great if some of the modules in the TVET College program could be swapped for more in-depth modules about economics and finance.

The project definitely showed the possibility of student transitions from vocational colleges to university, but serious questions remained about the role of student support offered by institutions involved and revealed the stark differences between them. The following section highlights these contextual differences in the light of the literature drawn on.

Broader Institutional Issues and Their Impact

The introduction of a Level 5 professional qualification within South African TVET colleges provides an example of the influence of privatization aspirations (Ball and Youdell 2007). Vocational colleges provided this qualification as it afforded additional third-stream income for the colleges. Colleges had to appoint external industry recognized facilitators to teach this qualification as this was an accreditation requirement of the industry accreditation body. Facilitators were hired on a contract basis for the duration of the qualification, which did not build the internal capacity of the college to develop their own staff expertise in this area. In addition, industry facilitators did not hold teaching qualifications and were poorly equipped to provide academic foundational support. Student support services were drawn on but these resources were stretched as the funding did not extend to colleges for support services. Despite this, most students felt well supported by the colleges they were enrolled in. However, no provision was made for additional learning needs that could enable successful progression to university studies. From an industry perspective, the sole purpose of this qualification was to address the professional needs of the long-term insurance industry, and broader public provider commitments to holistic development and progression of learners were largely ignored.

Critiques of Tinto (2005) and Astin's (1999) institutional approaches to student retention and development provided by Rovai (2003), McCubbin (2003), and Rutschow et al. (2012) were validated in the public university's approach to student development. As students in the project were studying part-time and after hours, they were unable to draw on the range of the university's student support services as in the case of full time students. Despite a much larger and better resourced student support services division, students at the university were

more poorly served than they had been at TVET colleges. In particular, students with disabilities struggled to complete their qualifications at the university. This was not due to a lack of commitment by student support personnel, but rather that public universities remain ill-equipped and under-resourced to serve a range of people with disabilities when they are not fulltime students attending class during day time hours. From an academic perspective, students had little recourse to additional academic support and were required to pay for additional support. Most of the students in the progression route had been out of school for years and their completion of the industry-based qualification within TVET colleges did not prepare them sufficiently for academic disciplinary study.

While the academic and inclusive support people with disabilities received from TVET colleges enabled most of these students to complete the requirements of the industry-based qualification, this support did not assist them to adjust to the rigors of a traditional research university where options to repeat assignments were not available. Most students struggled to cope with the academic requirements of the university qualification, and they were not able to access additional foundational knowledge in disciplinary areas such as mathematics, economics and English. Students also struggled with literacy skills for the completion of assignments at the university, as the industry- based qualification at vocational colleges did not prepare them for academic essay writing. Student support services in the vocational colleges and the university were fully supportive of this progression project. However, the support services provided at the college and at the university differed substantially in their approaches to student development. At the colleges, student support services were deployed to ensure that students achieved an industry-recognized qualification that enabled them to practice as insurance brokers. This involved working closely with all students to prepare portfolios of evidence that demonstrated competence in the outcomes-based qualification. But this support did not prepare students for disciplinary-based learning and academic study at a traditional academic university. The university's student support services proved too limited for part-time students, and they were unable to provide the academic and foundational support needed by most students to complete the transition to university successfully. While this intervention was able to prove that progression from a professional industry recognized qualification to a disciplinary based qualification at university is possible,

such innovative projects are likely to achieve only limited success if approaches to student support, for instance, are so divergent. Bridging the gap between college and university will need more creative alignment and appreciation of the needs of students as they transition between traditionally separate learning contexts.

Conclusion

Research into student transitions in Southern and Sub-Saharan Africa has shown that there is minimal student progression from vocational institutions to universities. The student transition and progression project in South Africa revealed important learnings that ought to be taken into account for successful student transitions between these educational sectors. The student transition project attempted to enable employed students within the South African insurance industry to undertake a professional qualification route through college and university. In examining why such a low throughput rate was achieved, some theorization of student transitions as well as the experiences of students were examined to try and determine the issues that impacted their success. Most of the student support literature places a strong emphasis on the integration of students into institutional support systems and adequate academic support, noting though that part-time students are considerably less integrated and supported at institutions than mainstream full-time students. The dangers of privatization imperatives were also discerned. While there was considerable evidence of institutional student support offered to the cohort of students in the project, the support stemmed from fundamentally different approaches.

Support provided by public TVET colleges was to ensure that employed learners completed a workplace qualification. Support within the workplace for these employed students was generally weak as workplace mentors were unfunded, yet were expected to mentor students as an additional part of their workload. A more flexible assessment approach allowed learners to repeat formative and summative assessments and this in part contributed to high throughput rates at TVET colleges. Students found that no additional funding was provided for the academic support required by them in their transition to academic university programs. While TVET colleges provided strong student support, they were unable to build

their internal capacity to continue offering the industry Level 5 program as their accreditation body would only approve instructors from the insurance industry to teach the course. A range of challenges confronted students upon their arrival at university, as student support there did not enable them to address subject knowledge deficits and they struggled to comply with the academic requirements of economics, mathematics, and literacy. Support offered to part-time students was substantially limited as most student support structures were only available during daily working hours. Additional academic student support offered by the university had to be paid for by students as the funding provided did not include student support. Students with disabilities struggled with infrastructural access to venues and with limited accommodation for their range of disabilities.

In sum, the project showed that competing approaches to student support did not serve the students within the professional qualification route. Despite significant frustrations, nearly a quarter of the student cohort persevered and obtained a university diploma. Very few students were, however, able to sustain the necessary level of academic involvement and only six students completed a postgraduate qualification. Future interventions of this nature would need to incorporate student support structures into the academic planning, conceptualization, and resourcing of these from inception, if such initiatives between post-school institutions are to succeed. This would necessitate a coordinated approach from institutions that to date have operated largely in siloes, and the recognition that resourcing student support adequately is critical for student progression, more especially in South Africa's post-school education and training sector.

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Chapter 8

Research Findings and Conclusion

8.1 Introduction

This thesis has focused on the articulation of TVET Colleges with universities and the world of work through a range of journal articles and a co-authored book chapter. The Oxford online Dictionary definition of the word articulate notes that the word is derived from the Latin noun 'articulus' meaning a 'small connecting part'. Articulation as an adjective means 'having or showing the ability to speak fluently and coherently' and a technical definition as 'Having joints or segments', (*Oxford Dictionary 2019:n.p.*). An educational definition of articulation is repeated from the introductory chapter for ease of reference:

Articulation refers to the mechanisms that enable student mobility within and among the institutions that comprise the tertiary system, for example, academic credit accumulation and transfer, recognition and equivalence of degrees, recognition of prior learning, and so forth (N'gethe et al. 2007, xvii).

This chapter draws on all of these definitions of articulation in the findings below as a heuristic device to show some of the complexities involved in researching articulation in South Africa. The first section of the chapter discusses systemic findings affecting articulation in South Africa and draws on existing educational definitions of articulation in South African policy documents. The second section draws on a technical definition of articulation as 'jointed' or 'joined up' and focuses on institutional findings affecting the ability of TVET Colleges to effectively articulate with other post-school education and training sectors in South Africa. The third section focuses on attitudinal aspects affecting articulation in South Africa, which draws on perceptual definitions of articulation defined by the ability to speak fluently and coherently. Theoretical approaches used in the previous journal articles for this thesis are drawn on to elaborate these findings in each section of the chapter.

8.2 Systemic findings on articulation

Policy formulation for TVET Colleges in South Africa and the SADC region has stressed the importance of preparing college graduates for employment in line with human capital approaches to development. McGrath (2012) has critiqued this approach as an outdated model of development, which is corroborated by the UNESCO (2013) report on the status of TVET in the SADC Region that regards current TVET policy approaches to economic growth and development as largely rhetorical. The journal article submitted as Chapter 2 of this dissertation traces TVET policy development back to British colonial times and documents ways in which colonial policies for British Tropical Africa separated technical training for colonial production from vocational training, with the latter used to subjugate black Africans under colonial rule. The article argues that successive imposed policies for TVET from colonial to contemporary times have had a lasting impact and that despite contemporary progressive policy aims, the TVET sector in the SADC region remains a marginalised sector. Other systemic issues include TVET governance, which is often fragmented across a range of government ministries and the recent establishment of national qualification frameworks have tended to separate TVET provision within separate qualification frameworks (UNESCO 2013). Articulation from TVET institutions to universities remains minimal in Anglophone countries within SADC and the SADC TVET sector remains underfunded and poorly resourced in comparison to school and university sectors.

Most of the research undertaken on systemic issues affecting articulation within this dissertation has focused on the TVET sector in South Africa. A key systemic issue affecting the TVET sector in South Africa is that TVET provision is situated at the nexus of three national sub-qualification frameworks that have operated largely in isolation from each other. TVET provision spans schooling, occupational and higher education qualification levels, but articulation with other education and training sectors has remained elusive. The establishment of South Africa's National Qualifications Framework (NQF) overseen by the South African Qualifications Authority (SAQA Act, 1995) advocated articulation between education and training sectors as a policy priority. However the subsequent review of the NQF (RSA, 2009) led to the creation of three sub-qualification frameworks that have not encompassed TVET provision and have different accreditation and curricular requirements.

SAQA has recently contributed significantly to South Africa's articulation policy (RSA 2014) in noting that articulation within South Africa's education and training system includes both

systemic and institutional issues. From a systemic perspective, SAQA has attempted to introduce a range of supporting policies for articulation, such as credit accumulation and recognition of prior learning policies. While these policies have been promulgated into education and training legislation, SAQA has no official authority to enforce these policies as its primary role remains to oversee the implementation of the NQF. SAQA is also not able to enforce the three sub-qualification frameworks to collaborate on areas such as articulation, as each of the sub-frameworks are constituted as statutory bodies in their own right.

Subsequent education and training legislation has reinforced TVET College provision at NQF Level 2-4 (Grades 10-12 of formal schooling) on South Africa's national qualifications framework (White Paper 4, 1998). This has had a significant impact on the TVET College sector's ability to articulate with higher education institutions. Whereas the introduction of new National Certificate Vocational (NCV) programmes at NQF Levels 2 to 4 was legislated in 2007 to provide access to higher education, universities have largely not recognised the NCV programmes offered by TVET Colleges as an equivalent to the National Senior Certificate school leaving qualification. Following the promulgation of the White Paper for Post-School Education and Training (2013), TVET Colleges have offered limited provision of a National Higher Education Certificate at NQF Level 5 (first year university), accredited by South African universities. This allows for progression to a diploma, advanced diploma and postgraduate certificates or diplomas offered by universities. What has not yet proved possible in South Africa is an articulation route between TVET Colleges and universities that results in the achievement of mainstream undergraduate degree programmes, currently only accessible through a school leaving certificate.

The articulation of TVET College sector provision with occupational qualifications faces similar systemic challenges. Funding for occupational programmes that are quality assured by SETAs and the emerging Quality Council for Trades and Occupations (QCTO) is provided on an ad hoc basis, often through a competitive bidding process, and does not form part of mainstream funding provided by the Department of Higher Education and Training (DHET) for mainstream TVET College programmes namely, the NCV and NATED programmes. While significant work has commenced on the realignment of the NATED programmes under the QCTO, there is minimal articulation between TVET College mainstream provision and subsequent occupational qualifications. Additional systemic factors include existing labour legislation that

impedes TVET College staff from providing training in the workplace, as they are not covered under insurance schemes for employers and employees. This has resulted in a lack of capacity and resources from TVET Colleges to effectively articulate with workplace based occupational programmes.

This assessment of systemic issues affecting articulation between the TVET College sector and higher education has shown that the majority of TVET College provision has been located at Grades 10 to 12 levels (NQF Level 2 -4) of formal secondary education. An exception is the NATED N4-N6 programmes, which have been designated at NQF Level 5, but very limited possibilities exist for progression to NQF Level 6 diplomas at universities from the NATED route. Subsequent articulation from the TVET College sector to occupational and higher education sectors offers limited opportunities for progression due to systemic factors, including funding, differing accreditation and curricula requirements that are beyond the legislative control of the TVET College sector. Whereas a formal articulation policy for South Africa has been promulgated (2014), the TVET College sector is severely constrained in its systemic ability to effectively articulate with South Africa's post-school education and training sector. The following section focuses on institutional factors affecting articulation in South Africa in order to identify specific contextual factors affecting articulation.

8.3 Institutional findings on articulation

The journal articles included in previous chapters have extensively shown the constantly changing policies and legislation for the TVET College sector since South Africa's independence in 1994. 128 technical colleges were merged into 50 FET Colleges in the late 1990s and early 2000s and were defined as a provincial competence under the authority of provincial education departments. Subsequent legislation (DoE 2006) directed the 50 public TVET Colleges to establish college councils and all staff, with the exception of senior management, then fell under employment conditions set by the college councils. In 2009, the Department of Education was split into two departments, the Department of Basic Education (DBE) responsible for schools and the Department of Higher Education and Training (DHET) that included adult education centres, TVET Colleges, SETAs and universities. This led to TVET Colleges being recentralised under the national control of the DHET as part of a 'joined up' post-school education and training system with adult education and higher education

institutions. Despite the formation of a post-school sector with TVET Colleges as an integral part, articulation within the post-school education and training system has not been achieved.

These institutional changes have resulted in a TVET College sector that has no institutional autonomy to choose articulation pathways and agreements with other post-school education and training institutions. Instead TVET Colleges are centrally steered by the DHET according to prescribed staffing and curricula norms. The White Paper for Post-School Education and Training (2013) envisages increased autonomy for TVET Colleges, but to date there is very little evidence of TVET College autonomy.

The lack of institutional autonomy has also affected the ability of TVET Colleges to offer specialised curriculum that could lead to dedicated articulation routes with universities and employers and/or self-employment. Whereas South African public universities have the statutory authority to generate new resources and curricula in response to emerging demands, this is not the case for the public TVET College sector. All 50 public TVET Colleges are funded to offer mainstream NCV and NATED programmes from the fiscus, regardless of geographical location or proximity to local and regional industries. The mainstream curricula is prescribed with set text books and materials, and no fiscal funding is provided to TVET Colleges for the development of their own curricula that could be used for articulated programmes. SETAs require providers to develop their own learning materials as part of the accreditation process, and as TVET Colleges have now become preferred SETA providers, the same applies. However, TVET Colleges outsource learning materials development and hire external industry recognised facilitators on a contract basis for outcomes based learnership programmes. A key reason for this is funding from the SETAs and skills based levy funds provides income for particular programmes with no guarantee of sustained funding for the continuation of these programmes. It is therefore not viable for TVET Colleges to dedicate staffing and fiscal resources to programmes that may not be funded in future.

An articulation project between TVET Colleges and a research university in professional financial planning qualifications for the insurance industry formed the basis for Chapters 6 and 7 of this dissertation. These chapters clearly reveal the institutional teaching and learning complexities involved in the development of an articulated qualifications route. Chapter 6 focuses on the incompatibility of workplace based qualifications as a preparation for

academic disciplinary learning using Bernstein's (1999) theoretical approach of horizontal and vertical learning discourse. Chapter 7 focused on student support mechanisms employed by TVET Colleges and a research university in this articulation route, using Tinto's (2005: 2010) theoretical approach on student retention, which were not adequate to prepare students for an articulation route in professional qualifications.

The focus on institutional factors affecting articulation by TVET Colleges with post-school education and training institutions and the world of work has shown that despite being part of a broader post-school system, articulation within this system is minimal and the TVET College sector faces challenges in effectively articulating programmes in the work place. TVET Colleges can therefore be regarded as a separate silo within the post-school education and training sector, rather than a joined-up or integrated part of this sector. The following section focuses on attitudinal perceptions affecting articulation by the TVET College sector with career and learning pathways.

8.4 Attitudinal findings on articulation

TVET Colleges have long been viewed as a second rate education and training opportunity in comparison to undergraduate study at a university. There has been very little research conducted on students' attitudes to vocational education and Training in South Africa (Cosser 2009, Needham and Papier 2010, Powell 2014). South Africa has one of the highest rates of return from university education (Cloete et al 2009) and students are aware of these opportunities. Existing data in South Africa taken from the 2011 Census and the 2016 Community Survey (Branson 2018) shows that only 150 000 young people entered adult learning institutions or TVET Colleges from a total pool of 1 750 000 who had completed Grade 9 qualifications and were therefore eligible to enter funded study at TVET Colleges. It is not possible however to ascertain reasons for students' reluctance to enter TVET Colleges from these statistics.

Needham and Papier (2010) completed a small commissioned study for City and Guild Centre for Skills Development (UK) on what young people think about vocational education in South Africa. 58 students from TVET Colleges and secondary schools were interviewed in three provinces. The results of these findings showed that secondary school youth (Grade 10) had very little knowledge or understanding of vocational programmes offered by TVET Colleges

and the majority were focused on entering university after school. Students studying NCV programmes at TVET Colleges readily admitted that TVET Colleges were not their preferred first choice of study and many students still held hopes that on completion of the NCV programme they would progress to university, despite minimal articulation between TVET Colleges and universities. Vocational education was largely understood as inferior to professions obtained through university qualifications. Perceptions from some school students were that TVET College graduates often ended up working in menial jobs.

A key challenge for South African TVET Colleges has been the recruitment of students who are capable of successfully completing programmes offered by the colleges (Papier 2007). The NCV programmes were implemented in 2007 at TVET Colleges at NQF Levels 2-4 and the first throughput of students in 2009 showed less than a 5% pass rate. In order to address this, TVET Colleges started recruiting students with Grade 12 school leaving qualifications (NQF Level 4). However, these students then ended with the same level of qualification (NQF Level 4) after three years of study at a TVET College. Although education authorities have argued that these are new learning areas and academic levels of exit qualifications should be ignored, this has not assisted TVET Colleges to recruit academically competent students. Recent directives from DHET have instructed TVET Colleges to recruit learners with school based qualifications lower than Grade 12.

Chapter 5 shows evidence that many students who were not academically succeeding in school were encouraged to leave the school and enter TVET Colleges. Many of these young people were very reluctant to leave school and enter TVET Colleges. However, students' attitudes towards the TVET Colleges showed significant support for the programmes offered by these colleges, especially as it provided students with a vital second chance to continue studying.

While throughput rates for mainstream college programmes have improved from 2009 these remain less than 50 %. Studies on employment destinations have also shown that just over 50 % of TVET College graduates obtain employment in the formal economic sector. (SACCI 2013, HSRC 2018). Bhorat et al (2016) has also shown that TVET College provision has not had any measurable impact on South Africa's economic growth, which in part corroborates the perceptions held in the small attitudinal study conducted in 2011 above.

Attitudinal perceptions of the TVET sector are not confined to students alone however. At a systemic level, the South African government made a decision to lower TVET College enrolment by 30 000 students in 2017 in order to fund fees for university students as a result of the Fees Must Fall protests that resulted in increased state spending on higher education (MTEF 2016). Despite the introduction of a new qualifications framework for TVET College lecturers that includes an occupational qualification, years of work experience and educational degree qualifications, TVET College lecturers are still paid the equivalent of formal secondary school teachers. Continuous policy changes for the TVET College sector have resulted in the marginalisation of the TVET as a sub-sector of South Africa's post-school education and training system.

At an institutional level, significant work has been undertaken to increase throughput rates within the mainstream NCV and NATED programmes, which theoretically allow for articulation with higher education. However, occupational outcomes based qualifications funded by SETAs and the national Skills Fund remain narrowly focused on immediate short term outcomes required by the world of work. Chapters 6 and 7 show that employed learners within the insurance industry undertook an NQF Level 5 learnership at TVET Colleges as part of a professional qualifications route, which poorly prepared them for subsequent academic study and in effect rendered them inarticulate within a higher education environment.

Chapter 2 of this thesis shows that attitudes to vocational education and training have been largely negative within South Africa and the SADC region. Foster's argument (1965) that 'Aspirations are determined largely by the individual's perception of opportunities within the exchange sector of the economy, destinations by the *actual* structure of opportunities in that sector (emphasis in the original 1965a, 151)' appear to remain true today. Despite the provision of significant state funding for students to enter TVET as well as national policy targets set for the production of artisans (National Development Plan 2012), the overwhelming choice of students in South Africa is to access universities rather than TVET Colleges. The DHET has recently commissioned research to ascertain reasons why students are not applying for National Student Financial Aid Scheme (NSFAS) funding to study TVET College programmes (DHET 2019). Attitudinal responses to articulation have revealed that the TVET College sector is not perceived as the primary choice of study by young people and that the TVET College sector is subjected to external funding and quality assurance regimes

that do not assist effective articulation within South Africa's post-school education and training sector.

This section of the findings has showed systemic, institutional and attitudinal findings that have emerged from the journal articles and book chapter included in the thesis. The following section draws on the theoretical frameworks used for these academic articles and suggests ways in which these could be used for further research on articulation.

8.5 Theoretical approaches to articulation

Having summarized the research approaches adopted in the range of publications used for this this PhD, it is apposite to reflect on what this research contributes to understandings of articulation. The definition provided below is a standard and recognized definition of articulation in higher education.

Articulation refers to the mechanisms that enable student mobility within and among the institutions that comprise the tertiary system, for example, academic credit accumulation and transfer, recognition and equivalence of degrees, recognition of prior learning, and so forth (N'gethe et al. 2007, xvii).

The focus on student mobility 'within and among the institutions that comprise the tertiary system' implies vertical progression as students move through higher education systems.

This definition also implicitly acknowledges the role of qualifications frameworks through its reference to mechanisms such as credit accumulation and transfer and recognition of prior learning. Articulation, as defined here, is primarily focused on academic progression within and between educational institutions.

SAQA's articulation policies (2014) and the more recent Articulation Policy for the Post-School Education and Training System of South Africa (2017) reiterate that articulation is comprised of systemic and specific components. Systemic articulation refers to a

'joined up' system incorporating qualifications, professional designations, policies, and various other official elements aligned to and supportive of, learning and work pathways (SAQA 2017, 1)

Specific articulation refers to processes for:

structuring or aligning qualifications to enable progression in practice, with or without intra- or inter-institutional agreements, such as Memoranda of Understanding, Credit Accumulation and Transfer (CAT), and other mechanisms (SAQA 2017, 1).

For specific articulation between and within institutions, the SAQA 2017 articulation policy for the post-school education and training sector notes that the support of institutions is required to create flexible approaches to 'admission, curriculum, learning and teaching, and learner support systems' (SAQA 2017,1).

UNESCO's definition of articulation for TVET is:

Structures linking levels and programmes of education or education with employment and allowing movement between programmes at the same level or between education and employment. (UNESCO 1984)

While UNESCO's definition focuses articulation to employment, all of these definitions broadly focus on mobility of learners to further learning and employment. However, a focus on student transitions and mobility has the potential to dilute the term 'articulation'. As an example, the National Articulation Baseline Study Report commissioned by SAQA (SAQA 2017) cites a number of articulation pathways that could be taken to scale which include inter alia articulation from: TVET College programmes into the world of work; TVET Colleges to trade tests to work, and TVET Colleges to higher certificates and diplomas in universities of technology and comprehensive universities. If articulation can be defined as any mobility of learners between the world of work and higher education there seems to be a reduced need to theorise about articulation as there is significant literature on student transitions and mobility (e.g. O'Donnell, Kean and Stevens 2015). The following section attempts to show ways in which the research in this thesis can contribute to deeper understandings of the term 'articulation'.

Theoretical approaches used within this thesis challenge assumptions within these existing definitions of articulation. The policy transfer literature used in Chapter 2 (McGrath 2012; Robertson 2008; Schneider & Ingram 1990; Steiner-Khamsi and Waldow (Eds) 2012, and Stone 2012) shows that policy transfer and policy formulation is not neutral and can be

coercive in nature. Within South Africa and the SADC region, there is significant rhetoric in TVET policies that advocate the centrality of TVET in developmental policies, but there is minimal research evidence to show implementation of these policies (UNESCO 2013). The use of policy transfer literature assists with the identification of historical and contextual factors that have shaped education and training sectors and ways in which they have interfaced with each other. Policy transfer and policy diffusion theory also note the extent to which education and training policies are voluntarily adopted and adapted. This theoretical approach was used in Chapter 3 to show the dominance of British education and training approaches for TVET from colonial times to the present, even though South Africa's TVET sector has benefited from significant Danish, German and European Union funding over the past twenty years. Future use of a policy transfer approach could include comparisons between TVET sector policies in developing countries with those of their ex-colonial countries to identify the extent to which historical legacies exist and are demonstrated in contemporary policies.

The work of Ball and Youdell (2007) on endogenous and exogenous privatization also extends into the policy realm in showing that contradictory and countervailing policies for both public and private TVET providers have had a significant impact on the ability of the TVET sector as a whole to respond to economic developmental needs and employment. The use of endogenous privatisation was particularly useful in analysing neoliberal approaches to management and staffing structures within the public TVET College sector. Ball and Youdell's explanation of exogenous privatisation also assisted the author to identify ways in which the state provided education and training markets for private providers through the Department of Labour's skills development policies. This article has argued that government's steadfast commitment to a centralised neoliberal human capital approach has hindered TVET Colleges' ability to address local, regional and national economic priority growth areas. A future use of Ball and Youdell's privatisation approach could be to identify impediments facing TVET Colleges' capability to address issues of sustainable development and the informal economy, as opposed to the formal economic sector.

Chapter 4 focuses on a commissioned study from a Labour Market Intelligence Project (LMIP) research project that provides government with information on the employment and learning trajectories of TVET College graduates. The commissioning of this research shows government's intention to inform future policy directions for the TVET sector through

evidence based research. This research study has noted the importance of including both supply-side and demand-led information in future policy deliberations as an average 50 % employment rate after completing a three year post-secondary qualification cannot be ascribed solely to educational provision but also needs to take South Africa's economic environment into account. The methodological approach for this survey was extensively documented, which has recently been adopted for further destination studies currently ongoing (GTAC 2019, DHET 2019), with a specific focus on building the capacity of DHET personnel to systemically align their data and processes to coordinate future destination surveys. This academic research focused primarily on TVET College graduates' articulation into formal employment, while also showing very low percentages of graduates establishing small businesses or self-employment. Research on articulation to date has not been conducted on ways which TVET College graduates articulate with the informal economy and entrepreneurship, which may require the use of different research methodologies.

Chapter 5 utilises the work of Amartya Sen (1999) on a capabilities approach that stresses the potential freedom of all persons in achieving human development. This research focused on young people experiences of articulation into South Africa's post-school education and training sector through undertaking entry level skills programmes within TVET Colleges. There is minimal research that includes the voices of young people from a capability perspective (Hoffmann 2005, Walker and Unterhalter 2007, Wilson-Strydom 2011, Powell 2014, McGrath and Powell 2014). This article shows the lack of understanding of articulation pathways from formal secondary schooling to post-school education and training by young people. It also shows the convoluted routes that learners need to take to further their learning and career pathways if they are unable to follow the mainstream route of finishing school and entering universities.

From a human capital perspective, this intervention for youth at risk entering TVET Colleges demonstrated poor economic returns on investment as very few learners obtained employment after their entry level skills programmes. Capability theory offers an alternative means of gauging success of educational interventions. The use of capability theory allowed the author to show that young people, who had repeatedly failed in their formal schooling experience, were able to regain their self-esteem and confidence to continue their learning and career pathways. Importantly, the role that TVET College staff played in providing social

and epistemic support to these young people was acknowledged, which suggests that TVET Colleges can assist individuals achieve their own freedoms. It also reveals a critical role that could be performed by TVET Colleges, namely meaningful second-chance opportunities, which can be seen as a form of articulation.

Chapters 6 and 7 focus on an in-depth analysis of an articulation intervention between TVET Colleges and a research university. Chapter 6 drew on Bernstein's (1999) theory of horizontal and vertical forms of knowledge. The article revealed the difficulties of combining a unitized occupational programme (located within TVET Colleges) with traditional discipline based qualifications offered by a research university within one articulation route. The central focus of the occupational programme was to develop short-term skills needs of the insurance industry and did not provide a foundational base for further study towards undergraduate and postgraduate study towards a professionally recognized designation. Whereas the most recent articulation policy (SAQA 2017) recognizes that articulation within the post-school education and training programmes needs to be by design, this article elaborates the need for collaborative curriculum design, learner support and lecturer capacity-building if horizontal and vertical knowledge constructs are to be integrated.

Chapter 7 drew on the theoretical work by Tinto (2005: 2010) as well as Rovai (2003), McCubbin (2003) and Rutschow et al (2012) to show that student support structures at TVET Colleges and universities for students within an articulation project were not sufficient to enable their success. The student support literature emphasises the integration of students into institutional support systems and strong academic support, and notes that part-time students are considerably less integrated and more vulnerable than mainstream students. This was corroborated in this article as students were employed within the insurance industry and attended part-time courses at TVET Colleges and universities. The article showed the range of student support required within the workplace, TVET Colleges and universities for students to successfully complete this articulation route in professional qualifications. Competing approaches to student support were identified as a result of the pedagogical approach for separate qualifications and the understanding of the purpose of these qualifications from a stakeholder perspective. The article argues that student support for articulation needs to be conceptualised at the inception of the articulation process and

requires significant resources for the successful integration of workplace based qualifications with academic qualifications.

This summary of theoretical approaches identifies the need for further research on articulation between and within post-school education and training institutions. Current policies on articulation lay a primary emphasis on systemic and institutional structures that need to be in place for effective articulation to be put in place. Many of the structures identified are based on outcomes based national qualification framework mechanisms such as Credit Accumulation Transfer (CAT) and Recognition of Prior Learning (RPL). Theoretical work undertaken for this thesis has shown that the development of mechanisms to assist student mobility within post-school career and learning pathways are not sufficient in themselves to ensure successful articulation to the world of work and university study. Articulation involves an understanding of the contextual factors that have shaped post-school education and training institutions, as well as collaborative efforts between institutions and workplaces in areas of curriculum support, student support and pedagogical support for articulation interventions to succeed. Attitudinal approaches to articulation at both a systemic and institutional level also requires further research in order to overcome the current 'silo' formation of separate sub-qualification frameworks and qualifications that undermine effective articulation of learners' career and learning pathways within a post-school education and training system.

8.6 Conclusion

A common theme across the chapters of this thesis has been the articulation from TVET Colleges to further study in higher education and the world of work. The chapters were deliberately sequenced to start with a historical comparative overview of TVET College articulation over time in the SADC region. An analysis of South African policies was then provided that focused on endogenous and exogenous privatisation approaches within the TVET sector. A third article reported on the key findings of a large scale survey that ascertained TVET College graduates' career and learning destinations. The remaining three articles focused on institutional aspects of articulation within TVET Colleges through an analysis of youth at risk entering TVET Colleges, as well as curricula and student support issues affecting articulation to universities as part of a professional qualifications route.

These articles have shown that TVET Colleges sit at the nexus of three sub-qualifications frameworks and TVET College provision overlaps school based education, occupational education and training and high education, which has significant implications for effective articulation. The use of multiple theoretical approaches was necessary to explore some of these intersecting factors and formulate systemic and institutional issues that arise from the TVET College sector's location within South Africa's post-school education and training sector, as well as the proximity of this sector to the world of work. In so doing, this thesis has attempted to demonstrate some of the external and internal issues affecting articulation of the TVET College sector with university study and employment. Whereas this thesis has often focused on problems affecting effective articulation by the TVET College sector, it has also focused on the need for TVET Colleges to differentiate their curriculum provision, including the provision of higher education programmes in order to change its current status as a second choice post-school institution. It is hoped that that this research can contribute to the further development of South Africa's TVET system as an integrated of part of South Africa's post-school education and training sector through effective articulation to universities and the world of work.

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Appendix A: Research Methodology for the Destination Survey in Chapter 4

In line with the SSACI, JET, & NBI (2016) NCV destination survey, an employment tracer study was utilised as the methodology to study the destination pathways of public TVET College graduates in NATED Engineering and Business Studies programmes. Given the lack of data on TVET college graduate destinations, an empirical investigation offered the best prospects of better understanding graduate destinations. Tracer studies provide retrospective analyses of populations and are often used in education to evaluate the impact of programmes after graduation. Typically tracer studies occur a year or two after graduation, and consist of large scale 'snapshot' surveys with the possibility of future follow up surveys to provide longitudinal data. Because of their specific nature, tracer studies normally ask a few questions in order to get a larger, clearer response. Given the lack of data, and the uncertain understanding of the nature of the TVET graduate population's life course, and in order to align to the SACCI (2016) NCV destination survey so that comparative study could be undertaken. Alike to the SACCI study, this research sought to create a larger set of variables in the interests of exploratory research. It was the intention of this research that this initial report on the variables would point in the direction of areas requiring more detailed investigation.

The sampling frame

The research targeted N6 Business graduates and N3 and N6 Engineering graduates from the 50 public TVET colleges across South Africa. The sampling frame was drawn from the Skills Accord lists of work placements provided by the DHET, and was supplemented by student contact data obtained from 26 TVET colleges (50% of the total number of colleges responded to a request for this information) by UWC IPSS staff as well as by the contact data obtained from 4 colleges in the Eastern Cape obtained by CIPSET. Subsequent to cleaning of the data there were 19 377 records with contact phone numbers.

Difficulties were encountered with determining the population as official data available was based on either subject completions rather than unutilised graduate records or provided for both private and public TVET colleges or on enrolments (not completers). Data received did

not provide sufficient information on NATED N2 graduates, a first exit point to apprenticeships in South Africa or for the year 2012. As a result, the decision was taken to record available data on N3 and N6 Engineering students as well as N6 Business Studies students and to focus the study on 2013 graduates only. Official figures published by the DHET and disaggregated by programme, level and year for the year 2013 cohort was in the end used as the population size for the study.

The intended sample was 20% of the 2013 graduates (total number of completers), stratified in terms of the population of completers per province, programme area and level of programme (N3 and N6). The term 'graduates' used in this study refers to students who completed all four subjects for the N3 or N6 Engineering and Business programme, as per the list received from the DHET. The sample was further stratified at the level of the college, with the service provider attempting to call 20% of the dataset provided per college. The telephone survey, undertaken in 2016 achieved 4050 respondents.

The survey was quantitative, with respondents selecting responses from a predetermined list of options set up in a consultative process, and covering the main research questions indicated above. Reporting was against 38 variables including characteristics of students entering the college (demographics, prior qualifications, motivation for entering college), student choices and experiences at college (college, programme, level and selected work related programmes), post-college destinations and experience (employment status, salary, contract type, and job search strategies) and inter-provincial migration.

The survey

The survey was developed to address the key research questions. In addition, an attempt was made to align to the key questions provided in the SACCI's NCV destination survey. Exemplars were also drawn from the LMIP work done in the Eastern Cape among higher education students. Through collaborative efforts, the questionnaire underwent a number of iterations

and refinements shaped by multiple engagements with the research team, key stakeholders and the call centre company who was engaged to undertake the telephonic survey. The final iteration was shaped by the findings of the survey pilot where the questions were tested by the call centre company on a protected online platform to assess where areas of confusion potentially existed.

A telephonic survey, rather than an online survey was selected. The rationale for conducting telephone interviews was that TVET college students might not be able to complete an online survey due to inadequate internet access. Of the 19377 respondents only 208 responded positively to completing the survey online or via email, confirming our suspicions about limited access to appropriate technology. To this end a call centre company was appointed to administer the telephonic survey. The specific nature of telephone interviews (as opposed to face-to-face or written surveys) required a research design that took into account the quality of responses, and not only the quantity. This is as telephone surveys were prone not only to missed calls, but also to missing data and (more subtly) indifferent responses (see Cohen et al. 2007).

As the 'cold call' approach was considered to be undesirable and inefficient, the call centre recommended approaching the survey in a phased manner, and 'warming up the market' through an initial SMS contact. A series of 'sweeps' were included in the design of the fieldwork as follows. First, a 'blank' call was sent electronically to the dataset to ascertain how many of the phone numbers were still operational, since students would have graduated at least 3 years ago. Thereafter, an SMS was sent to all operational numbers informing them of the purpose of the research, the competition prize and requesting permission to conduct the interview. This included a response option. The option of completing an online questionnaire was also given to the student in this SMS. This was followed by emailing the questionnaire to those students who indicated this option. The telephonic interviews were then conducted with those who agreed to participate. In conclusion, a final 'thank you' email, which served to announce the winners of the competition was sent.

Contact and Response Rate

The call centre adopted a strategy of contacting the sample target 20% of all NATED graduates in each of the 50 public TVET Colleges in an attempt to arrive at a representative sample of completers across South Africa. The 20% were randomly selected using the approach outlined above. The administration of the survey commenced on 6 June 2016 and by 30 June, 4050 NATED graduates had completed the survey.

In addition to the response rate, the contactability rate is important for future research of this kind. Of the 19377 records, the survey was unable to connect to 10121 (58%) cell phone numbers. In addition, a further 2666 numbers were operational, but could not be used to contact the lead person in the sample. Therefore, of the 19377 potential respondents in the sampling frame, the actual available number of respondents was reduced to only 4561. From this total number of available respondents, a stratified sample had to be attempted in order to arrive at the 20% sample that had originally been envisaged. Taking into account the 4561 respondents available to be surveyed, the 4050 completed surveys represent an 80% response rate, albeit an unintended consequence of non-contactable telephone numbers. With reference to the number of rejected calls, the fieldworkers had to call 1.78 persons in order to obtain a willing respondent.

The data received from the call centre contained 4,049 cases but the analysis in this report is based on 3,013 cases as all 2012 graduates (n=566) were removed from the database. In addition, cases that met either one or more of the following criteria were excluded: (i) All those who indicated that they were not enrolled at a public TVET college in 2013; (ii) All those where the programmatic field was left blank; (iii) All duplicate cases; (iv) All cases whose course information suggested that they did not graduate from a NATED programme, but rather from a NCV programme in 2013 and (v) All cases where the province, N-level or programmatic field was left blank and where imputation from other fields was not possible.

In total n=1,049 cases were removed from the final database, leaving 3,013 valid cases for analysis.

Weighting

The data was subsequently weighted for the report, and though not optimal due to the foregoing, the results were as 'representative' as possible under prevailing circumstances. To correct for imbalances in the survey returns, the data presented in this report has been weighted and exists as a probability sample of graduates for whom contact details were available. Imbalances arose due to the usual survey error, but were further distorted by the varying management information systems in the public TVET college sector that resulted in uneven capacity to provide graduate contact information.

The population used to weight cases was the statistics provided in the DHET (2015) Statistics on Post-School Education and Training in South Africa: 2013 (see Table A for a composite table of the population). Four factors provided by the DHET report were utilised to weight the data, namely: (i) the programme area, specifically Business Studies or Engineering, (ii) the N-level, specifically N3 and N6, (iii) province, and (iv) gender. The weighted respondents who participated in the survey were drawn from all 50 public TVET colleges in the country.

Table A: Study Population (DHET, 2015, Post School Statistics)

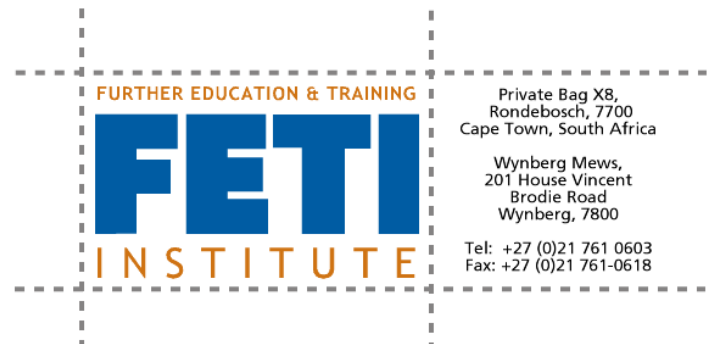
Province	Engineering			Business Studies			Grand Total
	N3	N6	Total	N3	N6	Total	
EC	1,113	619	1,732	0	561	561	2,293
FS	1,094	479	1,573	0	782	782	2,355
GP	6,277	3,153	9,430	0	1,758	1,758	11,188
KZN	3,719	1,689	5,408	0	1,545	1,545	6,953
LP	2,008	1,394	3,402	0	477	477	3,879
MP	2,117	469	2,586	0	175	175	2,761
NC	113	65	178	0	138	138	316
NW	1,148	270	1,418	0	361	361	1,779
WC	794	473	1,267	0	860	860	2,127
Total	18,383	8,611	26,994	0	6,657	6,657	33,651

*The population represents the number of 'completers' in 2013. The number of completers refers to the number of students who were eligible to complete and successfully completed the Report 191 (N3 and N6) certificates in the 2013 academic year.

The sampling process itself is therefore a key finding of this research. Whilst the targeted number of respondents was met, the conditions for data collection were less than ideal and will require systemic intervention going forward.

The IPSS observed ethical clearance protocols of UWC and the DHET. In line with its commitment to ethical research, IPPS ensured that all graduates were made aware of the research and asked to provide their consent to be telephonically interviewed in the first contact sweep. On receipt of their consent, a subsequent guarantee was provided to all recipients that their anonymity would be preserved through ensuring that neither their name nor the TVET college they studied at would be identified. All telephonic interviews were recorded, which recorded also participants' verbal consent to be interviewed.

Appendix B: Ethical Consent Forms for INSETA Articulation Project



23 September 2014

Dear

Research ethics consent form

The UWC FET Institute (FETI) has been asked to produce a final research project on the existing articulation project between Western Cape public TVET Colleges, the University of the Western Cape School of Business and Finance, insurance companies, FPI and INSETA in financial planning qualifications. FETI intends to conduct research with all stakeholders involved in this project in order to gauge the successes and challenges of this intervention. FETI guarantees that your name will not be used in any research report nor will information provided that could identify you be mentioned. A copy of the final research report can also be made available to you upon request.

Kindly sign this consent form below and fax or scan this form to our offices on Fax: (021) 959 9577 or email to sneedham@uwc.ac.za.

Your participation in this research is highly valued as FETI believes that the results of this research can be used to shape future articulation interventions within South Africa's education and training system.

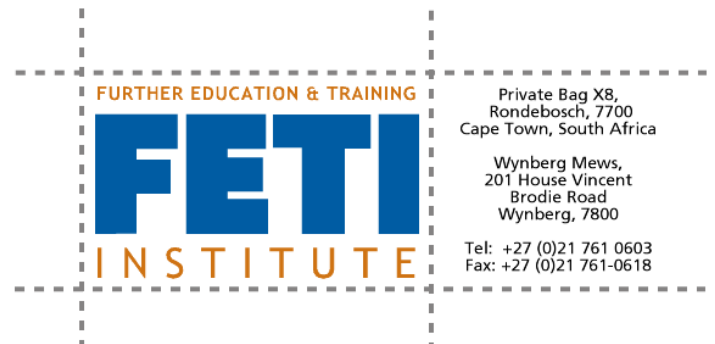
Sincerely



Seamus Needham
Research and Planning
UWC FET Institute

I ___name_____ hereby consent to participate in the UWC FET Institute articulation research project.

Signed _____ on _____ date _____



Sherma Malan
Accreditation manager
FPI

23 September 2014

Dear Sherma

Research ethics consent form

The UWC FET Institute (FETI) has been asked to produce a final research project on the existing articulation project between Western Cape public TVET Colleges, the University of the Western Cape School of Business and Finance, insurance companies, FPI and INSETA in financial planning qualifications. FETI intends to conduct research with all stakeholders involved in this project in order to gauge the successes and challenges of this intervention. FETI guarantees that your name will not be used in any research report nor will information provided that could identify you be mentioned. A copy of the final research report can also be made available to you upon request.

Kindly sign this consent form below and fax or scan this form to our offices on Fax: (021) 959 9577 or email to sneedham@uwc.ac.za.

Your participation in this research is highly valued as FETI believes that the results of this research can be used to shape future articulation interventions within South Africa's education and training system.

Sincerely

A handwritten signature in black ink, appearing to read 'Seamus Needham', written over a light blue circular stamp or watermark.

Seamus Needham
Research and Planning
UWC FET Institute

I ___name_____ hereby consent to participate in the UWC FET Institute articulation research project.

Signed _____ on _____ date _____

Appendix C: Ethical Clearance for the WCED Youth Focus Project



UNIVERSITY *of the*
WESTERN CAPE

April 2016



Dear Student

RESEARCH INTO THE WCED YOUTH FOCUS PROJECT

This research is being conducted among students in the Youth Focus Project of the Western Cape Education Department. The purpose of the research is to understand how students have experienced moving from High School to a TVET College and what their experiences in the college programme have been.

Please note that your name will not be used in the research and you will remain anonymous. You may withdraw at any time during the session and you have the right to refuse to answer any question that you may not be comfortable with.

Thank you in advance for your participation. Kindly sign and print your name in the declaration below to indicate your consent. This form will be included with the questionnaire that will be dealt with in the focus group interviews.

Kind Regards

The IPSS (UWC) Research Team

Project Leader: Professor Joy Papier – 021 959 9595

Researcher Coordinator: Nigel Prinsloo – 021 959 9595 – nprinsloo@uwc.ac.za

Declaration:

I agree to participate voluntarily in the Youth Focus research project and confirm that I am over 18 years of age.

.....

Signed by:



higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA



South Cape TVET College
Suid-Kaap Kollege
Ikholeji yasemZantsi-Kapa

APPLICATION FORM FOR ORGANISATIONS TO CONDUCT RESEARCH IN SOUTH CAPE TVET COLLEGE

1. APPLICATION INFORMATION			
1.1	NAME OF ORGANISATION WHICH IS UNDERTAKING THE RESEARCH	Institute for Post-School Studies (inc FET Institute) University of the Western Cape	
1.2	POSTAL ADDRESS	House Vincent, Wynberg Mews, Ebenezer Road, Wynberg, 7800	
1.3	NAME OF CLIENT FOR WHOM THE RESEARCH IS BEING UNDERTAKEN, IF APPLICABLE	Research under a Ford Foundation project with the support of the Western Cape Education Department	
1.4	NAME AND SURNAME OF CONTACT PERSON	Joy Papier	
1.5	TITLE OF CONTACT PERSON (PROF/DR/MR/MRS/MS)	Prof	
1.6	CONTACT DETAILS	TEL	021 9599595
		CELL	0824651143
		FAX	0219599577
		EMAIL	jpapier@uwc.ac.za

2. DETAILS OF THE RESEARCH			
2.1	TITLE OF THE RESEARCH	A destination case study of learning opportunities for youth who fail in high school and how they have experienced these second chances	
2.2	PURPOSE OF THE RESEARCH		

Since 2013 around 2000 young people have been re-directed by the Western Cape Education Department's Youth Focus project, into TVET colleges and Adult Learning Centres. This research follows up the work done in 2016 and will investigate the throughput and destinations of students who have completed their programmes funded by the WCED in order to close the loop by focusing on the pathways taken by students who completed their training in TVET colleges, and their entry into the workplace or other avenues after exiting the college. This will assist in understanding the impact of second chance learning on the lives of young people and inform post-school policy for youth at risk. The research will shed light on this intervention for young people entering South Africa's post-school education and training system, and their transitions from general schooling through TVET colleges and work.

3. PARTICIPANTS AND TYPE/S OF ACTIVITIES TO BE UNDERTAKEN IN THE COLLEGE			
<i>Please indicate the types of research activities you are planning to undertake in the College, as well as the categories of persons who are expected to participate in your study (for example, lecturers, students, College Principal, Deputy Principals, Campus Heads, Support Staff, Heads of Departments), including the number of participants for each activity.</i>			
3.1	COMPLETE QUESTIONNAIRES	EXPECTED PARTICIPANTS (e.g. students, lecturers, College Principal)	NUMBER OF PARTICIPANTS
		a) Lecturers involved in teaching Youth Focus Project students	1-2 per college
		b)	
		c)	
		d)	
		e)	
3.2	PARTICIPATE IN INDIVIDUAL INTERVIEWS	EXPECTED PARTICIPANTS	NUMBER OF PARTICIPANTS
		a) Coordinator of the youth focus programme group at College or other manager	1 per college
		b)	
		c)	
		d)	
		e)	
3.3	PARTICIPATE IN FOCUS GROUP DISCUSSIONS/WORKSHOPS	EXPECTED PARTICIPANTS	NUMBER OF PARTICIPANTS
		a)	
		b)	
		c)	
		d)	
		e)	
3.4	COMPLETE STANDARDISED TESTS (e.g. Psychometric Tests)	EXPECTED PARTICIPANTS	NUMBER OF PARTICIPANTS
		a)	
		b)	
		c)	

		d)	
		e)	
3.5	UNDERTAKE OBSERVATIONS <i>Please specify</i>		
3.6	OTHER <i>Please specify</i>		

4. SUPPORT NEEDED FROM THE COLLEGE			
<i>PLEASE INDICATE THE TYPE OF SUPPORT REQUIRED FROM THE COLLEGE (PLEASE TICK RELEVANT OPTION/S)</i>			
TYPE OF SUPPORT		YES	NO
4.1	THE COLLEGE WILL BE REQUIRED TO IDENTIFY PARTICIPANTS AND PROVIDE THEIR CONTACT DETAILS TO THE RESEARCHER.		X
4.2	THE COLLEGE WILL BE REQUIRED TO DISTRIBUTE QUESTIONNAIRES/INSTRUMENTS TO PARTICIPANTS ON BEHALF OF THE RESEARCHER.		X
4.3	THE COLLEGE WILL BE REQUIRED TO PROVIDE OFFICIAL DOCUMENTS. PLEASE SPECIFY THE DOCUMENTS REQUIRED BELOW		
	A list of students who have been in the Youth Focus Programme funded by the WCED where applicable, although such lists have also been obtained from the Project coordinator at the WCED.		
4.4	THE COLLEGE WILL BE REQUIRED TO PROVIDE DATA (<i>ONLY IF THIS DATA IS NOT AVAILABLE FROM THE DHET</i>). PLEASE SPECIFY THE DATA FIELDS REQUIRED, BELOW		
4.5	OTHER, PLEASE SPECIFY BELOW		

5. DOCUMENTS TO BE ATTACHED TO THE APPLICATION	
5.1	A RESEARCH PROPOSAL MUST BE ATTACHED TO THIS APPLICATION AS A PREREQUISITE FOR <i>THE</i> APPROVAL OF THE APPLICATION.
5.2	ETHICS CLEARANCE CERTIFICATE / STATEMENT.
5.3	LETTER FROM THE RELEVANT INSTITUTION SUPPORTING / MONITORING THE RESEARCH.

Please note that this is not a new research project and falls under the same research proposal and ethical clearance as the work done in 2016. The project was structured so that some activities took place in 2016 and others in 2017 to close out the study.

6. DECLARATION BY THE APPLICANT

I undertake to use the information that I acquire through my research, in a balanced and a responsible manner. I furthermore take note of, and agree to adhere to the following conditions:

- a) I will schedule my research activities in consultation with the South Cape TVET College and participants in order not to interrupt the programme of the South Cape TVET College.
- b) I agree that involvement by participants in my research study is voluntary, and that participants have the right to decline to participate in my research study.
- c) I will obtain signed consent forms from participants prior to any engagement with them.
- d) I will obtain written parental consent of students under 18 years of age, if they are expected to participate in my research.
- e) I will inform participants about the use of recording devices such as tape-recorders and cameras, and participants will be free to reject them if they wish.
- f) I will honour the right of participants to privacy, anonymity, confidentiality and respect for human dignity at all times. Participants will not be identifiable in any way from the results of my research, unless written consent is obtained otherwise.
- g) I will not include the names of the South Cape TVET College or research participants in my research report, without the written consent of each of the said individuals and/or South Cape TVET College.
- h) I will send the draft research report to research participants before finalisation, in order to validate the accuracy of the information in the report.
- i) I will not use the resources of the South Cape TVET College (such as stationery, photocopies, faxes, and telephones) whilst conducting my research study.
- j) Should I require data for this study, I will first request data directly from the Department of Higher Education and Training. I will request data from the South Cape TVET College only if the Department of Higher Education and Training does not have the required data.
- k) I will include a disclaimer in any report, publication or presentation arising from my research, that the findings and recommendations of the study do not represent the views of the South Cape TVET College or the Department of Higher Education and Training.
- l) I will provide a summary of my research report to the Principal of the South Cape TVET College in which I undertook my research, for information purposes.

I declare that all statements made in this application are true and accurate. I accept the conditions associated with the granting of approval to conduct research and undertake to abide by them.

HEAD OF ORGANISATION/ INSTITUTION	Prof Joy Papier	HEAD OF ORGANISATION/ INSTITUTION	SIGNATURE	DATE:
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FOR OFFICIAL USE

RECOMMENDATION BY QUALITY MANAGER OF SOUTH CAPE TVET COLLEGE

PLEASE TICK RELEVANT DECISION AND PROVIDE CONDITIONS/REASONS WHERE APPLICABLE

DECISION		<i>PLEASE TICK RELEVANT OPTION BELOW</i>
1.	APPLICATION RECOMMENDED	
2.	APPLICATION RECOMMENDED SUBJECT TO CERTAIN CONDITIONS. <i>SPECIFY CONDITIONS BELOW</i>	
3.	APPLICATION NOT RECOMMENDED. <i>PROVIDE REASONS FOR NON-RECOMMENDATION BELOW</i>	

**QUALITY
MANAGER**

FULLNAME

**QUALITY
MANAGER**

SIGNATURE

DATE:

DECISION BY PRINCIPAL OF SOUTH CAPE TVET COLLEGE

PLEASE TICK RELEVANT DECISION AND PROVIDE CONDITIONS/REASONS WHERE APPLICABLE

DECISION		<i>PLEASE TICK RELEVANT OPTION BELOW</i>
1.	APPLICATION APPROVED	
2.	APPLICATION APPROVED SUBJECT TO CERTAIN CONDITIONS. <i>SPECIFY CONDITIONS BELOW</i>	
3.	APPLICATION NOT APPROVED. <i>PROVIDE REASONS FOR NON-APPROVAL BELOW</i>	

--	--	--

**PRINCIPAL OF
THE COLLEGE**

FULLNAME

**PRINCIPAL OF
THE COLLEGE**

SIGNATURE

DATE:

UNIVERSITY OF THE WESTERN CAPE

ETHICAL CLEARANCE APPLICATION FORM (HUMANITIES AND SOCIAL SCIENCES RESEARCH ETHICS COMMITTEE)

PLEASE NOTE THAT THE FORM MUST BE COMPLETED IN TYPED SCRIPT. HANDWRITTEN APPLICATIONS WILL NOT BE CONSIDERED

SECTION 1: PERSONAL DETAILS

- 1.1 Surname of Applicant : Papier
- 1.2 First names of applicant: Joy Cecelia
- 1.3 Title (Ms/ Mr/ Mrs/ Dr/ Professor etc) : Prof
- 1.4 Applicant's gender : Female
- 1.5 Applicant's Race (African/
Coloured/Indian/White/Other) : 'Col'
- 1.6 Student Number (where applicable) : _____
- Staff Number (where applicable) : 246420
- 1.7 School : _____
- 1.8 College : _____
- 1.9 Campus : _____
- 1.10 Existing Qualifications : PhD

1.11 Proposed Qualification for Project : N/a

(In the case of research for degree purposes)

2. Contact Details

Tel. No. : 021 9599595

Cell. No. : 082 4651143

e-mail : jpapier@uwc.ac.za

Postal address (in the case of

Students and external applicants) : _____

3. SUPERVISOR/ PROJECT LEADER DETAILS

NAME	TELEPHONE NO.	EMAIL	SCHOOL / INSTITUTION	QUALIFICATIONS
3.1 Prof Joy Papier	0219599595	jpapier@uwc.ac.za	UWC Institute for Post School Studies	PhD
3.2				
3.3				

SECTION 2: PROJECT DESCRIPTION

Please do *not* provide your full research proposal here: what is required is a short project description of not more than two pages that gives, under the following headings, a brief overview spelling out the background to the study, the key questions to be addressed, the participants (or subjects) and research site, including a full description of the sample, and the research approach/methods

2.1 Project title

Youth Participation in Post-School Provision – A Case Study of Learning Opportunities for Youth Who Fail in High School – the WCED Youth Focus Project.

(NB: This research is a sub-set of a larger externally funded research project which is an extension grant for continued work on an interactive google map of post-school provision. The Youth Focus research is a new piece of research agreed to by Ford Foundation as part of this extension grant)

2.2 Location of the study (where will the study be conducted)

TVET Colleges in the Western Cape

2.3 Objectives of and need for the study

(Set out the major objectives and the theoretical approach of the research, indicating briefly, why you believe the study is needed.)

Youth who fail in academic programmes at high school often struggle to obtain further learning opportunities. Since 2013 around 2000 young people at risk of dropping out of school have been redirected and funded by the Western Cape Education Dept's Youth Focus Project, into TVET colleges and Adult Learning centres. To date no follow up has been conducted on this cohort that might shed light on their experiences of these opportunities and their pathways into further learning. The proposed research will therefore provide a critical window into the learning trajectories of at risk youth and their progress through these post-school institutions.

An extract from the research proposal (Activity 2) is attached hereto. Please note also that the Youth Focus research is a sub-set of a larger project entailing on-going work on a Google map of Post-school provision which

Ford had previously funded and of which the work on the map is an extension. As part of the extension grant Ford agreed to fund the study of youth into post-school institutions.

The Western Cape Education Department has requested this study as it is keen to evaluate whether the Youth Focus project has achieved its intended outcomes for which extensive funding was allocated. Students in the 2014-15 cohort are currently in TVET colleges and the WCED has contact details for these students. In terms of the Department of Higher Education and Training under which TVET colleges reside, permissions to conduct research in under 10 TVET colleges may be sought from colleges themselves.

2.4 Questions to be answered in the research

(Set out the critical questions which you intend to answer by undertaking this research.)

Main research question: What has the trajectory of students in the Youth Focus Project been from entry to exit in this second chance learning opportunity

Sub Questions:

- How have these at-risk students experienced the TVET college learning environment?
- What are students' perceptions of the impact of the learning opportunity afforded them on their lives and futures?
- How have students in the programme benefited by the opportunity afforded them?

2.5 Research approach/ methods

(This section should explain how you will go about answering the critical questions which you have identified under 2.4 above. Set out the approach within which you will work, and indicate in step-by-step point form the methods you will use in this research in order to answer the critical questions – including sample description, sampling strategies, data collection methods, and data reduction strategies.

- Based on the enrolment information which will be provided to us by the WCED, letters will be directed to TVET college principals for permission to conduct focus group interviews with Youth Focus Project students in their institutions, and with staff members who have interacted with these students.

- A 20% sample of these students will be sent letters explaining the purpose of the research, and requesting them to indicate their permission to be interviewed in a focus group at the college.
- Pseudonyms will be assigned and interview responses will not be attributed to individual students. In cases where focus group interviews cannot be conducted, telephone interviews will be held with students who may be at campuses which are further afield.
- Interview questions will cover the following categories of information: Student demographics, programme choices and progress within the Colleges; Student perspectives on their post-school learning placements and their experiences of the transition from school to post-school setting; College staff responses to the Youth Focus Project
- The 20% randomized sample will be stratified across the 6 TVET colleges in the Western Cape and the programmes which students were directed into.

For a study that involves surveys, please append a provisional copy of the questionnaire to be used. The questionnaire should show how informed consent is to be achieved, as well as indicate to respondents that they may withdraw their participation at any time, should they so wish.

2.6 Proposed work plan

Set out your intended plan of work for the research, indicating important target dates necessary to meet your proposed deadline.

STEPS	DATES
1. Seek permission from TVET colleges in the Western Cape to conduct the research requested by the WCED	By 15 April 2016
2. Set up a reference team for the research	
3. Obtain records of learners in the project from the WCED	By 15 April 2016
4. Develop interview instrument in collaboration with reference group	By 15 April 2016
5. Arrange Focus groups with learners still in the Colleges and conduct telephone	

interviews with those who have already completed the programme 6. Collate and Analyse data 7. Write up findings and Report	By 15 April 2016
	April – August 2016
	September 2016
	October 2016

SECTION 3: ETHICAL ISSUES

The UWC Research Ethics Policy applies to all members of staff, graduate and undergraduate students who are involved in research on or off the campuses of University of the Western Cape. In addition, any person not affiliated with UWC who wishes to conduct research with UWC students and / or staff is bound by the same ethics framework. Each member of the University community is responsible for implementing this Policy in relation to scholarly work with which she or he is associated and to avoid any activity which might be considered to be in violation of this Policy.

All students and members of staff must familiarise themselves with, AND sign an undertaking to comply with, the University's "Code of Conduct for Research".

QUESTION 3.1

Does your study cover research involving:	YES	NO
Children		X
Persons who are intellectually or mentally impaired		X
Persons who have experienced traumatic or stressful life circumstances		X

Persons who are HIV positive		X
Persons highly dependent on medical care		X
Persons in dependent or unequal relationships		X
Persons in captivity		X
Persons living in particularly vulnerable life circumstances		X

If "Yes", indicate what measures you will take to protect the autonomy of respondents and (where indicated) to prevent social stigmatisation and/or secondary victimisation of respondents. If you are unsure about any of these concepts, please consult your supervisor/ project leader

QUESTION 3.2

Will data collection involve any of the following:	YES	NO
Access to confidential information without prior consent of participants		X
Participants being required to commit an act which might diminish self-respect or cause them to experience shame, embarrassment, or regret		X
Participants being exposed to questions which may be experienced as stressful or upsetting, or to procedures which may have unpleasant or harmful side effects		X
The use of stimuli, tasks or procedures which may be experienced as stressful, noxious, or unpleasant		X
Any form of deception		X

If "Yes", explain and justify. If appropriate, indicate what steps will be taken to minimise any potential stress/harm.

QUESTION 3.3

Will any of the following instruments be used for purposes of data collection:	YES	NO
Questionnaire		
Survey schedule		
Interview schedule	X	
Psychometric test		
Other/ equivalent assessment instrument		

If "Yes", attach copy of research instrument. If data collection involves the use of a psychometric test or equivalent assessment instrument, you are required to provide evidence here that the measure is likely to provide a valid, reliable, and unbiased estimate of the construct being measured. If data collection involves interviews and/or focus groups, please provide a list of the topics to be covered/ kinds of questions to be asked.

QUESTION 3.4

Will the autonomy of participants be protected through the use of an informed consent form, which specifies (in language that respondents will understand):	YES	NO
The nature and purpose/s of the research	X	
The identity and institutional association of the researcher and supervisor/project leader and their contact details	X	
The fact that participation is voluntary	X	
That responses will be treated in a confidential manner	X	
Any limits on confidentiality which may apply	X	
That anonymity will be ensured where appropriate (e.g. coded/ disguised names of participants/ respondents/ institutions)	X	
The fact that participants are free to withdraw from the research at any time without any negative or undesirable consequences to themselves	X	
The nature and limits of any benefits participants may receive as a result of their participation in the research	X	
Is a copy of the informed consent form attached?	X	

If NO to any of the above: (a) please justify/explain, and (b) indicate what measures will be adopted to ensure that the respondents fully understand the nature of the research and the consent that they are giving.

QUESTION 3.5

Specify what efforts been made or will be made to obtain informed permission for the research from appropriate authorities and gate-keepers (including caretakers or legal guardians in the case of minor children)?

Standard ethical protocols will be maintained. Students will all be over 18 years of age and there are no minor respondents so parental consent would not be necessary.

In light of the POPI legislation, students will be asked to sign Consent letters agreeing to participate in the research, either via focus group interview or telephonic interview. The letter to the student will set out fully the purpose of the research and assure students that confidentiality of respondents will be observed. No personal identifiers will be used – students will be anonymised and assigned pseudonyms where necessary.

TVET college principals will be asked for permission to conduct focus interviews on their campuses in line with a directive from the Department of Higher Education and Training's in their newly published research policy.

QUESTION 3.6

STORAGE AND DISPOSAL OF RESEARCH DATA:

Please note that the research data should be kept for a minimum period of at least five years in a secure location by arrangement with your supervisor.

How will the research data be secured and stored? When and how (if at all) will data be disposed of?

Data will be stored in the IPSS archive for a minimum period of 5 years, after which data will be disposed of in accordance with the UWC protocols.

QUESTION 3.7

In the subsequent dissemination of your research findings – in the form of the finished thesis, oral presentations, publication etc. – how will anonymity/ confidentiality be protected?

As mentioned earlier herein, pseudonyms will be used for participants who will be participating on a voluntary basis. Names of participants and names of colleges will not be used in published research. Furthermore, the research remains the property of the Western Cape Education Department and will be utilized at their discretion.

--

QUESTION 3.8

Is this research supported by funding that is likely to inform or impact in any way on the design, outcome and dissemination of the research?	YES	NO X
--	------------	-----------------------

If yes, this needs to be explained and justified.
--

QUESTION 3.9

Has any organization/company participating in the research or funding the project, imposed any conditions to the research?	YES/NO
No	

If yes, please indicate what the conditions are.

QUESTION 3.10

Do you, or any individual associated with or responsible for the design of the research, have any personal, economic, or financial interests (or any other potential conflict of interests) that could reasonably be regarded as relevant to this research project?

YES NO

If you answered YES to Question 3.10 please provide full details:

SECTION 4: FORMALISATION OF THE APPLICATION

APPLICANT

I have familiarised myself with the University's Code of Conduct for Research and undertake to comply with it. The information supplied above is correct to the best of my knowledge.

NB: PLEASE ENSURE THAT THE ATTACHED CHECK SHEET IS COMPLETED

DATE: 29/03/16 SIGNATURE OF APPLICANT

SUPERVISOR/PROJECT LEADER/DISCIPLINE ACADEMIC LEADER

NB: PLEASE ENSURE THAT THE APPLICANT HAS COMPLETED THE ATTACHED CHECK SHEET AND THAT THE FORM IS FORWARDED TO YOUR SCHOOL RESEARCH COMMITTEE FOR FURTHER ATTENTION

DATE:

SIGNATURE OF SUPERVISOR/ PROJECT LEADER/DISCIPLINE LEADER

RECOMMENDATION OF FACULTY RESEARCH ETHICS COMMITTEE/HIGHER DEGREES COMMITTEE

The application is (please tick):

<input type="checkbox"/>	Recommended and referred to the Human and Social Sciences Research Ethics Committee for further consideration
<input type="checkbox"/>	Not Approved, referred back for revision and resubmission
<input type="checkbox"/>	Other: please specify:

NAME OF CHAIRPERSON:

_____ SIGNATURE: _____

DATE

RECOMMENDATION OF UNIVERSITY RESEARCH ETHICS COMMITTEE (HUMAN AND SOCIAL SCIENCES)

NAME OF

CHAIRPERSON:

_____ SIGNATURE _____

DATE.....

CHECK SHEET FOR APPLICATION

PLEASE TICK

1. Form has been fully completed and all questions have been answered	
2. Questionnaire attached (where applicable)	
3. Informed consent document attached (where applicable)	
4. Approval from relevant authorities obtained (and attached) where research involves the utilisation of space, data and/or facilities at other institutions/organisations	

5. Signature of Supervisor / project leader	
6. Application forwarded to Faculty Research Committee for recommendation and transmission to the Research Office	

Appendix D: Ethical Clearance for the HSRC Labour Market Intelligence Project



higher education
& training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

APPLICATION FORM TO UNDERTAKE RESEARCH IN PUBLIC TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING (TVET) COLLEGES AND PUBLIC ADULT EDUCATION AND TRAINING (AET) CENTRES

1. APPLICANT INFORMATION

1.2.1	Name of organisation which is undertaking the research	UWC FET Institute (now part of UWC Institute of Post-School Studies) and the Centre for Integrated Post-School Education and Training (CIPSET) at NMMU	
1.2.2	Postal address of organisation	P.O. Box 659 Rondebosch 7701	
1.2.3	Name of client for whom the research is being undertaken, if applicable	Human Sciences Research Council Labour Market Intelligence Partnership (LMIP)	
1.2.4	Name and surname of contact person	Joy Papier	
1.2.5	Title of contact person (Prof /Dr /Mr / Mrs/Ms)	Prof	
1.2.6	Contact details	Tel:	(021) 959 9595
		Cell:	082 465 1143
		Fax:	(021) 959 9577
		Email:	jpapier@uwc.ac.za

2. DETAILS OF THE STUDY

2.1	Title of the study
	Pathways through Education and Training and to the Labour Market (TVET Study)

--

2.2	State the main purpose of the study
<p>The main purpose of this study is to interview 1 185 Nated 191 N2 and N6 graduates from 50 public TVET Colleges in 9 provinces in order to establish their experience of entering a TVET College, their TVET College experience and their subsequent career path into employment. The TVET College graduates have been identified based on 2012 data and represent a 20 % sample of the national N2 and N6 graduate cohort. This study will directly inform DHET on the employability of Nated 191 graduates as information on employment of Nated graduates does not currently exist.</p>	

3. SUPPORT NEEDED FROM THE INSTITUTION

<i>Please indicate the type of support required from the institution (Please tick relevant option/s)</i>			
Type of support		Yes	No
3.1	The institution will be required to identify participants and provide their contact details to the researcher	X	
3.2	The institution will be required to distribute instruments on behalf of the researcher to participants	X	
3.3	The institution will be required to provide official documents. <i>Please specify the documents required below</i>		
3.4	The institution will be required to provide data. <i>Please specify the data required below</i>	X	
	<i>All 50 TVET Colleges will be required to send through administrative data detailing N2 and N6 learner records showing enrolment, pass and throughput rates for 2012. In addition, all 50 TVET Colleges will be asked to provide learner contact details of N2 and N6 graduates.</i>		
3.5	<i>Other, please specify below</i>		

4. TYPE/S OF ACTIVITIES TO BE UNDERTAKEN IN THE INSTITUTION

<i>Please indicate who is expected to participate in your study (for example, lecturers, students, College principals, campus Heads, support staff, Heads of Departments).</i>			
4.1	Complete questionnaires	Expected Participants	Number of participants
		a) Heads of Departments for NATED N2 and N6 Business and Engineering Studies	50
		b)	
		c)	
		d)	
		e)	
4.2	Participate in individual interviews	Expected Participants	Number of participants
		a) Telephonic interviews with N2 and N6 TVET College graduates	1185
		b)	
		c)	
		d)	
		e)	
4.3	Participate in focus group discussions/ workshops	Expected Participants	Number of participants
		a)	
		b)	
		c)	
		d)	
		e)	
4.4	Complete standardised tests (e.g. Psychometric Tests)	Expected Participants	Number of participants
		a)	
		b)	
		c)	
		d)	
		e)	
4.5	<i>Other, specify below</i>		

4.6	Undertake observations <i>Please specify in the column on the right</i>	
------------	--	--

5. DOCUMENTS TO BE ATTACHED TO THE APPLICATION


<i>The following document must be attached as a prerequisite for approval to undertake research in the institution</i>	
5.1	Research proposal

6. DECLARATION BY THE APPLICANT

I undertake to use the information that I acquire through my research, in a balanced and a responsible manner. I furthermore take note of, and agree to adhere to the following conditions:

- m) I agree that involvement by participants in the research project is voluntary, and that participants have a right to decline to participate in the investigation.
- n) I will therefore provide consent forms to participants to complete prior to the commencement of the research.
- o) I will honour the right of participants to privacy, anonymity, confidentiality and respect for human dignity at all times.
- p) I will not include the names of the said institution or research participants in my research report, without the written consent of each of these individuals and/or institutions.
- q) I will schedule my research activities in consultation with the said institution and participants.
- r) I will not interrupt the said institution's programmes.
- s) I will not use the resources of the said institution (such as stationery, photocopies, faxes, and telephones) for the research study.
- t) I will obtain written parental consent of learners under 18 years, if they are expected to participate in the study.
- u) I will inform participants about the use of monitoring devices such as tape-recorders and cameras, and participants will be free to reject them if they wish.
- v) I will provide a summary of the findings of the research to the Head of the specific institution.
- w) I will include a disclaimer to any report, publication or presentation arising from the investigation, that the publication does not represent the views of the said institution.

I declare that all statements made in this application are true and accurate. I accept the conditions associated with the granting of approval to conduct research and undertake to abide by them.

NAME OF HEAD OF ORGANISATION:	Prof Joy Papier
SIGNATURE OF HEAD OF ORGANISATION:	
DATE:	30 January 2016

FOR OFFICIAL USE

DECISION BY HEAD OF INSTITUTION

<i>Please tick relevant decision and provide conditions/reasons where applicable</i>		
Decision		<i>Please tick relevant option</i>
1	Application approved	
2	Application approved subject to certain conditions. <i>Specify conditions below.</i>	
3	Application not approved. <i>Provide reasons for non-approval below.</i>	
NAME AND SURNAME:		
SIGNATURE:		
DATE:		

A Pdf copy of the UWC Ethical Clearance form has been submitted as a separate attachment to this thesis.

Appendix E: Submission of journal articles for publication

Author Page

Date: 11 May 2018

Author

Seamus Needham
Senior Lecturer
Institute for Post-School Studies
University of the Western Cape
Ground Floor, House Vincent
Wynberg Mews
Wynberg 7800

Ph: (021) 959 9595

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Email: sneedham@uwc.ac.za

Dear SARE Editor

I hereby confirm that I have read through the 'Guidelines to Contributors' on the SACHES/SARE website and believe that my article submission falls within the guidelines provided. I further confirm that my article has been submitted to Turnitin and has revealed a result of less than 8% for a similarity score. Turnitin evidence can be provided in need. This article is currently not under consideration by any other journal and has not been presented at a conference. Please see the attached article titled 'Status of TVET in the Southern African Development Community: Colonialism revisited?' for your consideration.

Sincerely

Seamus

On Wed, Apr 17, 2019 at 2:31 PM Cathy Robertson <cathy@tcrobertson.co.za> wrote:

Dear Seamus

Congratulations! Your abstract has been conditionally accepted. The editors have had the following to say about it:

The main concepts in the paper will need to be strongly supported and motivated by evidence from empirical work that illustrates privatisation and its impact on education and training systems

Please submit your full paper to me, bearing the editors' comments in mind, for approval by 31 May 2019.

Happy Easter!

Warm regards

Cathy Robertson

Dr Catherine Robertson
Administrator: JOVACET (IPSS, UWC)
Research Associate (Stellenbosch University)
Associate member of PEG (Professional Editors' Guild)
72 Foxglove Street/Foxglovestraat 72
PAARL
7646

Tel.: 021 872-4404
Fax2Email number: 0864473664
Mobile: 082 8238 384

On Sun, Feb 10, 2019 at 1:18 PM Journal of Educational Studies
<Jes@univen.ac.za> wrote:

Dear Seamus

This is to confirm that JES received your manuscript. It will undergo the review process.

Regards

JES Secretariat

PRIVATE BAG X5050, THOHOYANDOU, 0950
LIMPOPO PROVINCESOUTH AFRICA
TEL: +27 (15) 962 8318/9094/9111
E-MAIL: jes@univen.ac.za

Appendix F: Acceptance of journal articles and a co-authored book chapter for publication

University of the Western Cape c/o Mr Seamus Needham 28 February 2019

To Whom It May Concern

Consistent with international best practice in scholarly publishing, the output of the HSRC Press is audited by an independent Editorial Board comprised of established scholars in their respective fields. The criteria used by the Board in its recommendation for publication are aimed exclusively at the merit of the scholarship.

All HSRC Press book publications are subject to a formal peer-review process by at least two specialists in the area of the manuscript's focus. Reviewers are appointed by the Board and the review process is a double-blind process – anonymous author and anonymous reviewer – in order to limit any bias.

This is to confirm that Chapter 9: Tracing the pathways of National Accredited Technical Education Diploma (NATED) programme graduates through Technical and Vocational Education and Training (TVET) colleges and beyond by Prof Joy Papier, Dr Lesley Powell, Timothy McBride, and Seamus Needham underwent a double blind peer-review process.

The volume **Post-school education and the labour market** in South Africa was edited by Assoc Prof Michael Rogan.

Two peer reviewers were commissioned to read the work. They felt that the work includes original analyses, which shed new light on an under-researched sector of South African education arriving at significant findings.

For the integrity of review process and an attempt to protect the identity of the reviewers, the reviewer reports are kept confidential and cannot under any circumstance be shared with a third party. The reports are meant to be read only by the Editorial Board members who have signed a confidentiality agreement with the HSRC Press. We therefore cannot release them.

The volume editors, oversaw the changes made by authors, and wrote a full response to points made by the peer reviewers to the Commissioning Editor of the HSRC Press on how the suggested changes were addressed, in line with the reviewers' suggestions.

The editorial Board was satisfied with the response to the reviewers and the changes made in light of the reviews. On that basis, the manuscript was accepted for publication. I can confirm that the book was published in February 2019.

I believe this volume offers insights about the way in which young people navigate their way through a host of post-school education and training options in South Africa. If you have any questions, please feel free to contact me at the email address listed below:

Yours faithfully

Mthunzi Nxawe Commissioning Editor HSRC Press +27 21 466 7878 mnxawe@hsrc.ac.za

www.hsrcpress.ac.za

A copy of the original Pdf document from the HSRC has been attached as a separate Appendix to this thesis.



UNIVERSITY of the
WESTERN CAPE



30 May 2019

ATT: TO WHOM IT MAY CONCERN

RE: SEAMUS NEEDHAM, PHD CANDIDATE

This is to confirm that Mr Seamus Needham participated in the development and writing of the chapter referred to in the following reference:

Papier, J., Powell, L., McBride, T., & Needham, S. (2019). *Tracing the pathways of National Accredited Technical Education Diploma (NATED) programme graduates through Technical and Vocational Education and Training (TVET) colleges and beyond* In M. Rogan (Ed), *'Post-School Education and the Labour Market in South Africa*, HSRC Press: Cape Town.

The role played by Mr Needham as part of the research team was as follows:

- Participation in the conceptualisation of the book chapter
- Contribution to planning and conduct of the field work
- Writing up of sections of the chapter, and contributing to overall coherence and finalisation of the chapter.

Further details can be provided upon request.

Sincerely,

A handwritten signature in dark ink, appearing to read "Joy Papier". The signature is fluid and cursive, with the first name "Joy" and the last name "Papier" clearly distinguishable.

.....

Prof Joy Papier

Research Team Leader

SARCHi Chair: TVET Studies

Seamus Needham

University of the Western Cape

Cape Town, South Africa

Dear Mr. Needham,

We are delighted to inform you that your contribution(s) on

- Student Support Structures for Transitioning from Vocational to University Education:

A South African Case Study

to the Handbook of Vocational Education and Training: Developments in the Changing World of Work (eds. Simon McGrath, Martin Mulder, Joy Papier and Rebecca Suart) has been published online [https://doi.org/10.1007/978-3-319-49789-1_92-1] by Springer Nature Switzerland AG in 2018, to be included in the print publication planned for 2019.

All contributions to this handbook were reviewed by at least two experts in the field. Recommendations on publication and feedback were then sent to authors by the designated editor. Revised manuscripts were also double reviewed before final acceptance. Chapters were subject to further editorial input from Springer as necessary.

We thank you for your contribution and look forward to continue working with you.

With best wishes, 30 April 2019

Aldeena Raju

Editor

Major Reference Works

aldeena.raju@springernature.com

A copy of the original Pdf has been included as a separate Appendix to this thesis.

**Journal of Vocational, Adult and
Continuing Education and Training**

Volume 1, Issue 1

2018

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A Pdf copy of this journal has been included as a separate Appendix to this thesis.

UNESCO Articulation - <https://unevoc.unesco.org/go.php?q=TVETipedia+Glossary+A-Z&id=54>